



Annual Report 2025

“A leader in scientific research and technological innovation that is impacting society.”



Vision

“A leader in scientific research and technological innovation that is impacting society.”

Mission

“To produce world-class graduates through excellence in teaching, cutting edge research, and the innovative application of science and technology.”

Our Core Values

1. High Ethical Standards
2. Professionalism
3. Diversity and Inclusivity
4. Innovation and Initiative
5. Pride and Passion

STRATEGIC OBJECTIVES 2025 - 2029

Academic Excellence

- 1.1 All academic programs are benchmarked or accredited.
 - Sustainability of the accredited engineering programs.
 - Benchmarking/Accreditation of all non-engineering programs.
 - Collaboration with industries in creating Work-Integrated Learning (WIL).
- 1.2 High-Demand Programs are meeting industry requirements.
 - Gather data to form the basis for updating the curriculum.
 - Increase Graduate Employability through Career Services.
- 1.3 Diversified training are aligned to industry advances.
 - Curriculum developed for new courses.
- 1.4 Blended & Digital Learning Environment
 - Transform and modernize the eLearning infrastructure and facilities
- 1.5 Teaching ethos is practiced at all levels of faculty.

Research, Innovation and Development

- 2.1 Research is solutions-driven.
 - Gather data to form the basis for determining solutions-driven research.
- 2.2 Research budget is stakeholder funded.
 - Academics to secure external research funds.
- 2.3 Reputable Centres of Excellence for research.
 - Transform Research laboratories to Centres of Excellence.
- 2.4 Dynamic culture of scholarly publications.
 - Enhance the research and publication culture.
- 2.5 Thriving Postgraduate School.
 - Enhance the postgraduate research culture.
- 2.6 Active Collaborations and Knowledge Exchange.
 - Strengthen partnerships with leading national and global universities and research institutions.
 - Rice research trial plots are established on campus before December 2026
 - The syllabus of the Undergraduate course "4+1 Chinese language" is ready for implementation by December 2026.

2.7 Operational Innovation and Technology Incubation hub.

- Building partnerships with DICT and CEFI and NICTA to establish foundation of the thriving incubation hub

Strategic Partnering

3.1 Robust University and/or Industry Partnerships.

- Establish industry-driven advisory boards, collaborations, and internship pathways.
- Strengthen International partnerships.
- Partner with financial institutions to support development projects.
- Mushroom Commercialization trial project will be done in partnership with Jucao Technology before June 2026.

3.2 Successful partnerships leading to increasing number of student entrepreneurs.

- Develop student entrepreneurship by supporting start-up ventures.
- Disability Lift are installed in the Maths & Computer Science department before December 2026
- Five table tennis sheds are installed in students hall of residence by December 2026
- Establish inclusive campus infrastructure projects.
- Conduct GEDSI awareness and Empowerment Program

3.3 Government Funded Projects driven by Higher Education Policy

- Advocate for increased funding and policy support for STEM education and University infrastructure.

3.4 Stakeholder Funded Technology Transfer through ATCDI and SPISARD

- Technology transferred through community-based projects.

3.5 Viable Private Public Partnerships (PPP) arrangement.

- PPP option is included under the Unicity and other commercial oriented infrastructure developments.

3.6 Engaged Alumni & Philanthropy.

- Strengthen ties with alumni to fund scholarships, mentorship programs, and infrastructure projects.

3.7 Active collaboration with overseas universities and bi and multilateral organizations.

- Form joint degree program, faculty and student exchanges and research consortia.
- To secure funding and technical support from the UN, World Bank, ADB and private foundations.

Operational Excellence

Finance and Sustainability

- 4.1 University is Financially Sustainable.
- Develop income generating enterprises, commercialize research, and optimize land and property assets.
 - Prudent management of finances.
 - The Technology Transfer Centre is commissioned and it's used to assemble Motorcycles by December 2026.
- 4.2 Good Corporate Governance Culture.
- Compliant to governance standards, practice & policy frameworks.
- 4.3 Profitable University subsidiaries.
- Commercial arms of the University are profitable.
- 4.4 Optimised financial gains through Asset Utilization.
- All University assets are utilized at optimum levels that are producing adequate return on investment.
 - Repossess all outstanding University land lost due to illegal occupancy by December 2026.
- 4.5 Intellectual Property (IP) is commercialized.
- Develop a technology transfer office to patent, license, and commercialize research outputs.
- 4.6 Patents are commercialized.
- Transform patents and innovative developments into commercial assets.

Agility and Efficient Internal Process

- 4.7 University internal processes are digitized and automated.
- Transform and digitize all internal processes.
- 4.8 Data-driven Management Culture.
- Collate all data stored in individual departments and migrate it to the Data Management Centre (DMC) by December 2026.
- 4.9 Effective Performance Measurement Systems.
- Automate performance measurement system (KPI driven).
- 4.10 Matured Risk Management Profile.
- Develop individual Standard Operating Procedures (SOP) Manual for the University's Risk Management Policy.

Institutional Capability (Staff, Technology, and Enabling Infrastructure)

- 4.11 Modernized Study and Living Environment.
- All student oriented recreational facilities and social enriching programs are available on campus.



- Conceptual redevelopment to modernize student dormitory is planned by December 2026.
- Upgrade of all current and build new recreational facilities.
- A 50 bed male dormitory and 4x2 bedroom staff Unites are constructed and ready for occupancy by 2027 academic year

4.12 Smart Campus infrastructure.

- Invest in: Accrediting all laboratories.
- Install gadgets to build smart classroom for improved teaching and learning.
- Develop green energy solutions.
- Project Office will deliver all projects within time and budget.
- The campus wide analogue TV network to be replaced with Digital TV system by December 2026.
- All teaching platforms used in lecture halls and classrooms will be electronically operated by December 2026
- Energy saving devices such as LED lights and Roof top solar lights are scoped out and budgeted by December 2026

4.13 Safe, Secured, and Beautified Campus.

- Smart Campus includes a safe, secure and eco-friendly living environment.

4.14 Secured Cyber Threats and data-governance.

- Strengthen data security, modernize the ICT infrastructure, and improve systems security for the ICT.

4.15 PNGUoT Master Plan, (Uni-city) is implemented.

- Assess, prioritize, and implement Atlas Urban Recommendations for Unicity.

4.16 Capacity and Capability of Teaching Staff meets employment.

- Number of teaching staff with Professorship, PhD, MA, MBA qualifications achieving the academic requirements.

4.17 Competitive terms & conditions of employment.

- Review and benchmark University Employment Terms and Conditions.

4.18 A Healthy, Smart and Vibrant Workforce.

- Empowered workforce fostering health, creativity, and smart solutions.

4.19 Empowered and Engaged Professional Workforce.

- Ongoing professional development for academic and non-academic employees at all levels.

4.20 Evolving and Inclusive Corporate Culture.

- University's corporate culture is aligned to international best practice.

* Priority Strategic Objectives 2025 - 2029	1 - 4
* Vice Chancellor's Overview	6
* Organizational Structure	7 - 8
* Governance Structure	9
* 2025 Highlights	10
* Office of the Registrar	12 - 16
* Faculty of Built Environment	17 - 22
* School of Architecture and Construction Management	18 - 19
* School of Surveying and Land Studies.....	20 - 22
* Faculty of Engineering.....	23 - 37
* School of Civil Engineering.....	24 - 26
* School of Electrical and Communications Engineering	27 - 29
* School of Mechanical Engineering.....	30 - 34
* School of Mining Engineering	35 - 37
* Faculty of Humanities.....	38 - 44
* School of Business Studies	39 - 41
* School of Communication & Development Studies	42 - 44
* Faculty of Natural Resources.....	45 - 60
* School of Agriculture.....	46 - 49
* School of Forestry.....	50 - 53
* Bululo University College.....	54 - 57
* Timber and Forestry Training College (TFTC) - Bumbu Campus	58 - 60
* Faculty of Postgraduates Studies, Research & Innovation.....	61 - 64
* Faculty of Sciences	65 - 73
* School of Applied Physics	66 - 68
* School of Applied Sciences	69 - 71
* School of Mathematics & Computer Science.....	72 - 73
* Research Centers	74 - 94
* Appropriate Technology & Community Development Institute (ATCDI)	75 - 78
* Centre of Excellence for Environmental Research	79 - 82
* South Pacific Institute for Sustainable Agriculture & Rural Development	83 - 85
* Melanesian Land Studies Centre	86 - 87
* Sustainable Energy Research Institute (SERI)	88 - 90
* Centre of Excellence in Biotechnology	91 - 94
* Non- Academic Departments	95 - 100
* PNGUoT Clinic	97 - 100
* Department of Open and Distance Learning	101 - 102
* Information and Communication Technology Services	103 - 105
* Matheson Library	106 - 108
* Security	109 - 110
* Student Support & Facilities Centre.....	111 - 113
* Teaching & Learning Methods Unit (TLMU)	114 - 115
* PNGUoT Agriculture Farm	116 - 119
* PNGUoT Rainforest Habitat	120 - 122
* PNGUoT Projects Division	123 - 125



Vice Chancellor's Foreword

The year 2025 has been another significant and productive year for the Papua New Guinea University of Technology (PNGUoT). The academic year commenced with exciting news that all five engineering programs were granted full accreditation by Engineers Australia under the Washington Accord. This important recognition was officially announced on 18 December 2024. The achievement attracted strong praise and support from government and industry stakeholders. In particular, the University acknowledges the valuable support provided by Kumul Petroleum Holdings Limited and ExxonMobil during the accreditation process.

To mark this milestone, PNGUoT hosted a celebration on 1 July 2025. The occasion was attended by distinguished guests from overseas, representatives from government, and leaders from industry who joined the University community in celebrating this achievement. The accreditation affirms the quality of engineering education delivered at PNGUoT and strengthens the international standing of our graduates. Following this celebration, the University hosted the Pacific Islands Universities Research Network Conference. Researchers from universities across the Pacific, Australia, and New Zealand gathered at PNGUoT to present research addressing issues affecting Pacific Island societies and economies. The conference provided an important opportunity for our academics to engage with colleagues across the region, strengthen research partnerships, and initiate new collaborative initiatives. These engagements continue to expand the research capacity and international visibility of PNGUoT.

These developments were complemented by the establishment of the Office of Strategic Internationalization (OSI). The Office was endorsed by the University Council in November 2024 to strengthen collaboration with international partner institutions and advance the University's global engagement agenda. The Director of OSI position is generously supported by Ok Tedi Mining Limited, Kumul Minerals Holdings Limited, and PNG DataCo Limited.

PNGUoT continues to demonstrate growth in expanding higher education access for young people and working professionals. Online enrolment increased from 500 students in 2024 to 800 students in 2025. Total student enrolment has now reached approximately 4,000 students, including about 250 postgraduate students, with around 30 currently pursuing doctoral studies. On campus, students have remained focused on their studies, supported by improved security and learning resources.

Our Estate and Services Division continues to work diligently to maintain and upgrade the University's ageing infrastructure. Several buildings have undergone refurbishment, improving the campus environment and creating more conducive living and learning spaces for staff and students. A major highlight was the completion of the University's new student dining hall, which was officially opened in October 2025 by the Chancellor of PNGUoT, Sam Koim.

Another important milestone was the launch of the PNGUoT Strategic Plan 2025–2029 in February 2025. The University's vision is to become the knowledge and technology hub of the Pacific region, delivering high-quality STEM education and conducting research that provides innovative solutions to real-world socio-economic challenges facing our region.

Academic Excellence and Research Excellence form the two primary pillars of the Strategic Plan. The University continues to invest in these areas to ensure that our graduates are equipped with high-quality qualifications and the skills required to contribute meaningfully to national development.

Partnership and Operational Excellence constitute the other two pillars of the Strategic Plan. The University Bursary continues to demonstrate strong accountability and transparency in financial management. The 2023 financial audit was completed with another unqualified opinion issued by the Auditor-General of Papua New Guinea. This achievement marks an unprecedented nine consecutive years of unqualified audit outcomes for the University.

The administration of the University remains committed to providing a supportive and productive working environment for our academic and professional staff. Their dedication ensures that PNGUoT continues to fulfil its mission of delivering quality education, advancing research, and serving the nation.

Further details of the University's academic and administrative achievements during the year are presented in this Annual Report.

Professor Ora Renagi OBE
Vice Chancellor
Papua New Guinea University of Technology

Organizational Structure



Members of the University Council

1. Mr Sam Koim, LLB, OBE Chancellor
2. Ms Finkewe Zurecnuoc ML, Pro Chancellor
3. Mr Paul Komboi, OBE Member
4. Mr David Masani - Member
5. Ms Florence Willie - Member
6. Mr John Byrne - Member
7. Professor Ora Renagi - Vice Chancellor and Member
8. Professor Tom Okpul - Member
9. Mr Franz Hemetsberger - Member
10. Mr Sabastian Singery - Member
11. Mr Vincent Kuma - Member
12. Mr Brenth Karol - SRS President - Member

In attendance

Mrs Veronica Thomas (Registrar)
Mr Diraviam Tharmaraj (Bursar)
Ms. Emmy Kama (Acting Executive Officer)

PNG University of Technology Organizational Structure

The PNGUoT Organizational Structure is derived from the PNG University of Technology Act, 1986, the University Statutes (by-laws) and the University Staff Establishment. The Council has 13 members and is formed in accordance with the Higher Education (General Provision) Act 2014 and the Higher Education (General Provision) (Amendment) Act 2020.

The Senior Executive Management, are identified as the Officers of the University under Section 25 of the University Act and the University Statutes No. 1/1995.

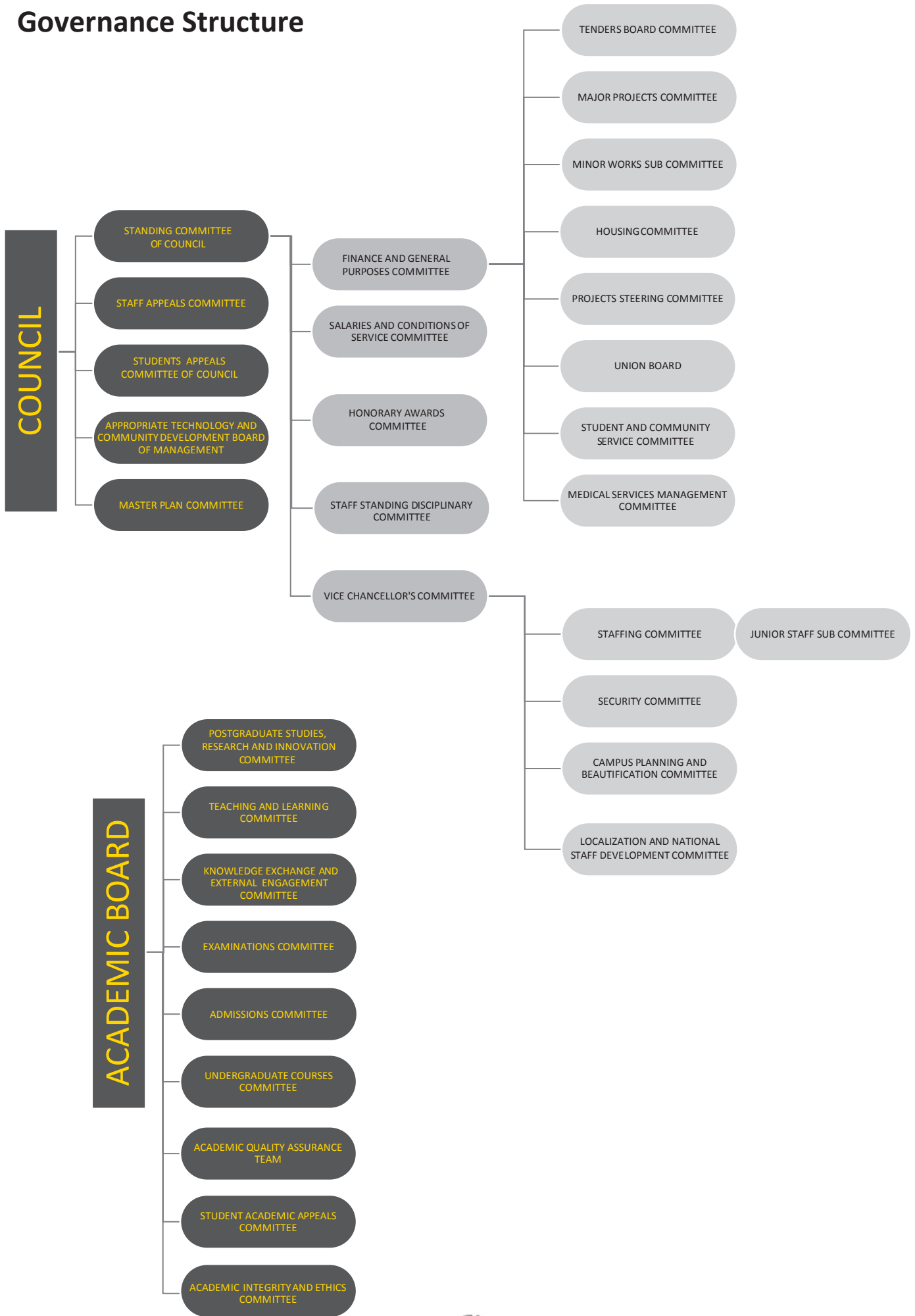
The Officers of the University are:

1. Chancellor
2. Pro Chancellor
3. Vice Chancellor
4. Deputy Vice Chancellor
5. Pro Vice Chancellor-Academic
6. Pro Vice Chancellor-Planning and Development
7. Pro Vice Chancellor-Administration
8. Registrar
9. Bursar
10. University Librarian

Under the Officers of the University, there are 13 Academic Schools and about 20 non-Academic departments and sections and units that support the officers of the University in implementing the University's purpose of establishment, including the University's visions and missions. The academic and non-academic schools, sections and units are derived from the University's Staff Establishment (established positions) as approved by the National Department of Personnel Management.

Attached is the illustration of the Organizational Structure.

Governance Structure



2025 HIGHLIGHTS

1. PNGUoT ranked number 1 among PNG universities (AD Scientific Index Ranking).
2. Launching of 2025-2029 Strategic Plan and 2025 Workplan. The 2025 Workplan was cascaded to the tier-2 and tier-3 workforce.
3. Celebration of the full accreditation of the engineering programs by Engineering Australia under the Washington Accord.
4. A grand celebration of 50 years of PNG Independence and recognition of the long-serving staff.
5. Publication of a Commemorative issue (50 Years of PNG Independence) of the Interdisciplinary Journal of PNG University of Technology (IJPNGUoT).
6. Successful graduation of the class of 2024 with 794 undergraduate and 54 postgraduate students.
7. Intake of 3398 UG students on-campus and 1234 online, along with 234 PG students.
8. Distribution of laptops to all first-year students
9. Hosting of Research, Science and Technology (RST) Conference, the 6th Pacific Islands Universities Regional Research Network (PIURN) Conference, and the Geo-PNG Congress.
10. Inauguration of the Radiological Laboratory- a state-of-the-art facility in the South Pacific
11. Inauguration of the newly built university mess by the Chancellor, Mr. Sam Koim, with a seating capacity of 980.
12. Successful bidding for the Erasmus+ program with partner institutions from PNG, the Maldives, and Europe under the umbrella of the Opening Collaboration for Education and Academic Networks (OCEAN) project.
13. A week-long research proposal writing workshop attended by 33 academic staff.
14. Successful completion of the DHERST External Quality Assurance exercise in compliance with Section 112 of the Higher Education (General Provisions) Act 2014 (as amended).
15. Upgrading the ICT facilities under the 'Smart Classroom' concept to facilitate live transmission of lectures simultaneously for the on-campus and online. Installation in one CDS classroom is already completed and tested. The classrooms in the school of Business Studies, Architecture and Construction Management, and Mathematics and Computer Science are in progress.
16. Professor Ananda Murthy of the School of Applied Sciences was listed among Stanford's 2% Scientists 2025.
17. Signing of MOA between the PNGUoT and the Joint Forces Academy (JFA), Igam Barrack to run Military Boot Camp for the PNGUoT students. Sixty-seven (67) first-year students participated in the weeklong exercise.

OFFICE OF THE REGISTRAR

1. Introduction

The Office of the Registrar is a central administrative unit of the University, responsible for Student Support & Facilities, Student Academic and Administration, Council Secretariat, Legal Office, and the Governance & Policy Office.

Key achievements include improving student welfare and facilities, refining enrolment and graduation processes, providing timely legal guidance, and enabling transparent decision-making by the University Council.

Policy updates and governance initiatives have further reinforced accountability and inclusivity. Together, these efforts highlight the Registrar's commitment to delivering efficient services and fostering a supportive environment for the entire University community.

Aligned with the University's Strategic Plan, 2025–2029, the Registrar's Office has focused on contributing to Academic Excellence, Inclusivity, Partnerships, and Operational Excellence.

Key achievements of the year include:

- Streamlining admissions and graduation processes through digitized systems.
- Expanding student welfare initiatives and upgrading learning facilities.
- Supporting Council decision-making with improved documentation.

- Strengthening compliance frameworks and legal advisory services.
- Updating governance policies to align with national higher education standards.

2. Core Functions and Activities

2.1 Academic & Student Administration:

The Academic & Student Administration Division continued to play a central role in managing admissions, orientation, registration, student records, examinations, scholarships, HELP loans, graduation, school fee refunds, and Academic Board support.

In 2025, the division aligned its operations with the University's Strategic Plan by promoting operational excellence through the digitization and automation of processes. Oversaw admissions, enrollment, examinations, and graduation. Implementation of digital platforms to reduce delays and improve transparency.

2.3 Council Secretariat

The Council Secretariat helps the University Council and its committees to do their jobs effectively. It ensures meetings are well-organized by preparing agendas, papers, and minutes, and guides members in following the University rules and Higher Education laws.



The Council has 13 members and is formed in accordance with the Higher Education (General Provision) Act 2014 and the Higher Education (General Provision) (Amendment) Act 2020.

The Secretariat also serves as an advisory body to the Council, Chair, and Vice-Chancellor.

It safeguards institutional memory by maintaining official records of decisions, contracts, and governance frameworks.

As the communication link between Council, management, faculties, and external stakeholders, it ensures that decisions are conveyed and implemented effectively.

By aligning Council actions with legislation and good governance practices, and supporting ceremonial functions such as oaths of office and inductions, the Secretariat upholds transparency, accountability, and efficiency.

2.4 Legal Office

The Legal Office is responsible for drafting and reviewing agreements, contracts, MOUs, and MOAs, providing legal advisory services to Council, management, and faculties, ensuring statutory compliance across policies and governance frameworks, supporting gov-

ernance structures, including the University Council and affiliated foundations, and administering ceremonial and statutory functions such as oaths of office.

2.5 Governance & Policy Unit

The Governance & Policy Unit, established under the Registrar's Office in 2019, continues to strengthen the University's working culture by developing, reviewing, and coordinating policies and governance frameworks. The Unit's work is organized into student operations, academic operations, and governance/administrative operations.

3. Staffing and Resources

Category	Student Support & Facilities (SS&F)	Student Academic & Administration	Council Secretariat	Legal Office	Governance & Policy Unit
Total Staff Strength	Total Staff: 28 Contract: 3 (1x Masters and 2x Degree) Permanent: x 9 Temporary: x 16 (Certificate) Vacant: x 2 (SAR - Facilities & Matron) Deceased: x2	Total Staff: 18 Contract: 3 (2x Masters) Permanent: 15 (Degree, Diploma & Certificate) Temporary: 2 (diploma / certificate) Vacant: Nil	Total Staff: 2 Contract: 1 (Masters) Permanent: 1 (Diploma /Certificate) Temporary: Nil Vacant: Nil	Total Staff: 1 Contract: 1 (Degree) Permanent: Temporary: 1 (Degree) Vacant: Nil	Total Staff: 1 Contract: 1 (Degree) Permanent: Nil Temporary: Nil Vacant: Nil
New Appointments (2025)		2 x temporary staff	3 x temporary staff until May 2025	1x temporary staff (Also assisting Council and GPU)	
Promotions	Nil	Nil	Nil	Nil	Nil
Training & Development	Director SS&F attended 1 month counselling training at Griffith University, Australia.				
Capacity Building Needs	New Office Building (planning stage)		Require the Assistant Registrar to provide support	Require the Assistant Registrar to provide support	Require office space Require the Assistant Registrar to provide support
Resource Availability	Two divisional vehicles.				

4. Project Highlights

4.1 Academic & Student Administration

- The total undergraduate enrollments recorded for the 2025 Academic Year were 4,573 in Semester 1 and 3,820 in Semester 2. This reflects normal enrollment adjustments across the Academic Year.

PNG UNIVERSITY OF TECHNOLOGY 2025 ENROLLMENT STATISTICS								
2025 ENROLLMENT STATISTICS								
FACULTY	PROGRAM DETAILS		SEMESTER 1			SEMESTER 2		
	DEGREE NAME	ABBREVIATIONS	GENDER		TOTAL	GENDER		TOTAL
			MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
BUILT ENVIRONMENT	Bachelor of Architecture	B.Arch.	60	17	77	62	16	78
	Bachelor of & Construction Management	BACM	98	23	121	91	23	114
	Bachelor of Surveying & Land Studies	BSVY	86	22	108	81	22	103
	Bachelor of Geographical Information Science	BGIS	56	46	102	53	44	97
	Bachelor of Property Studies	BPST	62	66	128	53	63	116
ONLINE	Bachelor of Property Studies (Online)	OSPS	80	25	105	35	6	41
	Bachelor of Construction Management (Online)	OSCM	145	20	165	87	12	99
ENGINEERING	Bachelor of Civil Engineering (Honours)	B.Eng.(Civil)	165	30	195	158	25	183
	Bachelor of Electrical Engineering (Honours)	B.Eng.(Elect)	179	31	210	177	35	212
	Bachelor of Mechanical Engineering (Honours)	B.Eng.(Mech)	141	31	172	144	30	174
	Bachelor of Mining Engineering (Honours)	B.Eng.(Min)	85	20	105	86	22	108
	Bachelor of Mineral Processing Engineering (Honours)	B.Eng.(Min.Pr oc.)	59	29	88	59	31	90
HUMANITIES	Bachelor of Business in Accountancy	BBAC	139	204	343	139	187	326
	Bachelor of Business in Applied Economics	BBAE	75	67	142	74	63	137
	Bachelor of Business in Information Technology	BBIT	68	64	132	62	59	121
	Bachelor of Business in Management	BBMA	62	65	127	60	61	121
	Bachelor of Arts in Communication for Development	B.A.(Comm. Dev.)	72	97	169	73	101	174
ONLINE	Bachelor of Business in Accountancy (Online)	OSAC	120	196	316	63	112	175
	Bachelor of Business in Applied Economics (Online)	OSAE	79	49	128	47	22	69
	Bachelor of Business in Information Technology (Online)	OSIT	101	42	143	52	24	76
	Bachelor of Business in Management (Online)	OSMA	73	135	208	28	85	113
	Bachelor of Arts in Communication for Development (Online)	OSCD	49	56	105	24	39	63

PNG UNIVERSITY OF TECHNOLOGY 2025 ENROLLMENT STATISTICS								
2025 ENROLLMENT STATISTICS								
FACULTY	PROGRAM DETAILS		SEMESTER 1			SEMESTER 2		
	DEGREE NAME	ABBREVIATIONS	GENDER			GENDER		
			MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
APPLIED SCIENCES	Bachelor of Science in Applied Physics with Electronics & Instrumentation	B. Sc.(Appl.Phys.)	101	35	136	103	31	134
	Bachelor of Biomedical Engineering	BEBE	25	24	49	27	26	53
	Bachelor of Science in Computer Science	B. Sc.(Comp.Sc.)	88	40	128	78	36	114
	Bachelor of Applied Mathematics	BSAM	42	17	59	40	17	57
	Bachelor of Science in Applied Chemistry	B. Sc.(Appl.Chem.)	44	48	92	40	48	88
	Bachelor of Science in Food Technology	B. Sc.(Food Tech.)	49	45	94	44	46	90
ONLINE	Bachelor of Applied Mathematics (Online)	OSAM	51	13	64	15	5	20
NATURAL RESOURCES	Bachelor of Science in Agriculture	B. Sc.(Ag.)	101	97	198	94	90	184
	Bachelor of Science in Forestry	B. Sc.(For.)	85	71	156	83	64	147
	Bachelor of Forest Resource Management	BFRM	71	35	106	57	26	83
	Diploma in Wood Processing & Management	DWPM	65	37	102	41	19	60
TOTAL			2776	1797	4573	2330	1490	3820

- Digitized hundreds of student records through the Container Project – Part A.
- Automated 80% of examination processes via UNISIS, improving accuracy and efficiency.
- Successfully hosted the 57th Graduation at the Sir Ignatius Kilage Indoor Stadium with 766 graduates (53 postgraduates).
- Developed a Standard Operating Procedure (SOP) manual to safeguard institutional memory.
- Processed 500 school fee refund applications, approving 291, with updated Refund Policy and sponsor MOUs.
- Administered the STAT PNG test to 16,800 registrants, with 13,547 test takers – a record increase.
- Accommodated one male student with special needs and secured his scholarship from the Australian Awards to study the first year of Computer Science at the University.
- Delivered counseling services to 195 students and awareness programs on health and behavior.
- Established The Voice Inc Centre for Learning
- Signed an MOA with PNGDF for annual Military Boot Camps. 67 students were trained this year.
- Finalized the Student Rule Book and Sports Policy.
- The PNGUoT Students Disciplinary Council (USDC) held six meetings, deliberated 30 cases, and suspended 13 male students for serious offences.
- Modified accommodation for the first student with special needs, with sponsorship support.
- Hosted the Vice Chancellor's Cup Rugby League Challenge, strengthening student engagement and community spirit.

4.2 Student Support & Facilities (SS&FC)

- Managed 53 dormitories with 2,122 (1440 male & 682 female) bed spaces and coordinated student clearances and transport. A new 200 bed female dorm is under construction and will be ready for use in the second semester of 2026.

- Partnerships extended to PNGDF, Angau Hospital, Morobe Disability Centre, PNG Sports Foundation, and Water PNG.

4.3 Legal Office

- Drafted constitutions and governance frameworks for the Unitech Komuniti Foundation (UKF).
- Prepared MOUs, MOAs, and procurement memos for housing and institutional partnerships.
- Administered oaths of office for the Student Representative Senate and mentored student leaders.
- Developed risk registers and compliance frameworks to strengthen institutional safeguarding.
- Conducted statutory alignment of the Student Rule Book.

4.4 Council Secretariat

- Conducted 4 Council meetings this year and other major committee meetings for the Master Plan, Finance & General Purposes Committee, Staff Appeals Committee, Students Appeals Committee, and Board meeting of Appropriate Technology for Community Development Institute.
- Digital distribution of papers,
- Uploading documents to Google Drive,
- Initiating a Secretariat Procedures Manual (SOP),
- Digitizing records (in progress)
- Automating student appeals (in progress)
- Introducing a resolution-tracking dashboard,
- Conducting Zoom meetings,
- Partnering with DHERST and PNG Institute of Directors, Somare Institute of Leadership & Governance (SILAG).
- Supporting ATCDI community initiatives,
- Using AI tools to draft, format, and summarize governance documents with improved accuracy and efficiency.

4.5 Governance & Policy Unit

- Drafted and implemented the Betel Nut & Smoke Policy for a healthier campus.
- Inducted the Student Representative Senate into governance structures.
- Inducted the Student Representative Senate into governance structures.
- Supported compliance with the 2025 DHERST audit and Agriculture Department benchmarking.
- Digitized Council and Academic Board files from 1965 to 2025 for improved accessibility.
- Advanced reviews of major policies: Financial Manual, Housing, Transport, Death & Repatriation.
- Promoted inclusivity through assisting in the establishment of the GEDSI Committee, which will report to the Vice Chancellor's Committee on its initiatives in implementing the GEDSI Policy and GEDSI Action.

5. Challenges and Way Forward

5.1 Challenges:

The Registrar's Office divisions are highly committed but under-resourced, with staffing and infrastructure gaps being the most pressing barriers to operational excellence. Across all divisions, the recurring challenges include:

- Staffing shortages and overload relative to responsibilities.
- Resource and infrastructure constraints (office space, funding, digital systems).
- Need for stronger automation and digitization to reduce manual processes.
- Balancing governance compliance with accessibility and student engagement.
- Need for continuous staff training to meet evolving governance standards.

5.2 Way Forward:

The Registrar's Office has identified several opportunities to strengthen its operations and address the challenges faced across divisions.

5.2.1 Digital Transformation

Expanding automation and digitization of processes will reduce manual workloads, improve efficiency, and safeguard institutional memory.

5.2.2 Capacity Building and Staffing

- Recruiting additional permanent staff, interns, and administrative officers. Targeted training in digital literacy, governance, compliance, and student engagement will enhance service delivery and professional expertise.

5.2.3 Infrastructure and Resources

Securing proper office space and upgrading facilities will improve coordination, recordkeeping, and staff morale.

5.2.4 Policy Awareness and Integration

Strengthening awareness campaigns, workshops, and digital communication platforms will ensure staff, students, and stakeholders understand and apply University policies consistently.

5.2.5 Partnerships and External Engagement

Leveraging collaborations with SILAG, DHERST, PNGDF, NGOs, The Voice and government & corporate sponsors will provide additional expertise, resources, and funding.

6.2.6 Strategic Alignment

All initiatives will be tied to the University's Strategic Plan, ensuring Council endorsement and donor confidence.

Faculty of Built Environment



School of Architecture and Construction Management

Contribute to sustainable and aesthetically pleasing structures that meet evolving societal needs



School of Surveying and Land Studies

Engage in geospatial technology, land surveying, and land management



School of Architecture and Construction Management

Introduction

a) Brief overview (including vision & mission)

The School of Architecture and Construction Management comprises two academic study programs: a three-year Bachelor's in Architecture program leading to a two-year Master's in Architecture, and a four-year Bachelor's in Construction Management program leading to a one-year and six-month Master's in Construction Management.

Each Program is designed and is built with its respective competencies and is benchmarked accordingly. Both academic programs commence in their selected disciplines in the first year of study. Both programs share some common subjects throughout the undergraduate programs, reflecting the industrial workplace. Specific profession-based subject deliveries, with relevant subject and professional competencies, are streamlined into the respective Master's Degree programs.

The school's vision is to graduate competent Architects and Construction Managers, and its mission is to offer internationally accredited architecture and construction management programs.

b) Alignment with University Strategic Plan

The School of Architecture and Construction Management is aligning with the PNGUoT University Strategic Plan 2025 – 2029 through the four pillars of (i) Academic Excellence, (ii) Research, Innovation and Development, (iii) Operational Excellence, and (iv) Financial Stewardship and Sustainability.

c) Update on benchmarking and accreditation

The old Year- 5 Bachelor of Architecture and Bachelor of Construction Management Programs were internationally recognized and accredited, dating back to 1998. However, it was not renewed, and with the introduction of four subjects per semester according to the PNGUoT policy, it has caused programs to miss out on some of the graduate competencies requirements.

The Program Benchmarking and Accreditation Process: Architecture:

Benchmarking for the Architecture Program is made to all Association of Architecture Schools of Australasia (AASA) and Accreditation with the Architects Accreditation Council of Australia (ACA).

Construction Management:

The benchmarking for the Construction Management Program is with the Australian Institute of Building (AIB), and ongoing communication and discussions have been progressive to date.

Both new programs and curricula were designed (2016 – 2019) and implemented in 2020 with the above tasks (benchmarking and accreditation) in mind.

Accreditation Plan 2026 - 2028

As mentioned in the previous report, the second Benchmarking will be documented and implemented in 2026 for both the Architecture and the Construction Management (Building) Programs.

1. The Architecture Program was and is currently with the Architecture Schools of Australasia Group, which is under the umbrella of the Association of Architecture Schools of Australasia (AASA). This grouping has 23 Australian Architectural Schools, 3 New Zealand Schools, the Architecture School in Hong Kong, the Architecture School in Singapore, and affiliate schools in Malaysia.
2. Earlier in the 1990s, the PNG Architecture Program was benchmarked with the Commonwealth Association of Architects in London, as with other Commonwealth Nations. This was rejected because of the costs involved and distance.

3. The accreditation of the Course in Architecture will be the same for all Schools that are members of AASA. The Accreditation Body is the Architecture Accreditation Council of Australia (AACA). The accreditation in the Architecture Program applies only to the +2-year Master's Program. This was implemented in the 2024 -2025 period when the master's program is in session.
4. From 1989 to 2009, the Building Program was benchmarked with the Building Schools accredited by the Australian Institute of Building (AIB). This was also limited due to staffing levels and cost constraints encountered at that time.
5. The new Construction Management Program will still maintain Benchmarking and pursue Accreditation with the Australian Institute of Building (AIB).
6. The timeline is scheduled in line with the Master of Construction Management, which starts in 2024. The accreditation is for both undergraduate and postgraduate programs in construction management courses.

Both the Architecture and Construction Management Programs will undergo the Accreditation Process Requirements from 2026 to 2028. This will be done in collaboration with the Industry Board of Architects of Papua New Guinea (BOAPNG), the Papua New Guinea Institute of Architects (PNGIA), and the Papua New Guinea Institute of Builders (PNGIOB).

The Accreditation of the Architecture Program

THE FOLLOWING DOCUMENTS WILL BE MADE AVAILABLE UPON REQUEST:

a) The Accreditation Process

b) The Accreditation of the Construction Management Program

1. The Costs

The costs could differ for the above programs because of the types of assessment required, it is anticipated to take place in the same period between the 2026 - 2027 academic years. The Costs involved are outlined in the Accreditation Procedures, but they are reviewed every year. In this regard, the review of 2026-2027 will be the costs for the PNG Architecture School.

A sample of Costs and Fee possibilities will be made available upon request.

2. Academic Programs on offer (Undergraduate, Postgraduate)

The School of Architecture and Construction Management is offering the following programs:

1. Three (3) year Bachelor of Architecture,
2. Two (2) Year Master in Architecture,
3. Four (4) year Bachelor of Construction Management, and
4. One year and six (6) months Master of Construction Management
5. Master of Philosophy in Architecture

3. Staffing and infrastructure

- There are currently 10 full-time contract academic staff and 13 part-time academics assisting the school. There are five vacant academic positions which are still yet to be filled. The increase in the number of part-time academics was caused by the introduction of the Bachelor of Construction Management (Online), Master's in Architecture, and Master's in Construction Management programs. There are 4 GAP students who are also assisting to teach 6 hours per week.
- With the increase in the number of academic staff, there is a need to build more office space for the academic staff. The other infrastructure, such as Lecture rooms, conversion of staff office to teach online classes, and projectors in 5 different rooms, also assists in the delivery of the program's contents.

4. Research and Innovation Highlights

- With the introduction of a new syllabus, AR 119 Introduction to Research in Architecture and Construction Management in 2024 has set the foundation of research. The introduction of Postgraduate programs in Architecture and Construction Management has highlighted the importance of research gaps that need addressing within the Papua New Guinea Context.
- Through research, it identifies the need for more innovations in addressing the pressing issue of housing that is faced by the country.

5. Partnerships & Community Engagement

- The school of Architecture is partnering at the international level with the other 26 schools representing respective Universities within the Australasian Region. likewise.
- The School of Construction Management is partnering with the other 18 schools of Construction Management within the Australasian Regions.
- The school is also partnering with PNG Institute of Architects, Board of Architects PNG, and PNG Institute of Builders in realigning the competencies that are needed at the graduate level.
- The school has deviated from the traditional approach of conducting master class and project week within the school. The school is now reaching out to neighboring communities to assist them with their conceptual design, prepare cost estimation, and provide construction management services for various proposed projects.

6. Challenges and way forward

- The main challenge that the school faces is the academic staff shortage.
- The way forward is to recruit from our school graduates with a Master's in Architecture and a Master's in Construction Management, respectively.

School of Surveying and Land Studies

INTRODUCTION

Overview of the School

The School of Surveying and Land Studies (SSLS) is one of the foundation academic units of the Papua New Guinea University of Technology (PNGUoT). Since the University's inception, the School has played a pivotal role in advancing the disciplines of Surveying, Geographic Information Science (GIS), and Property Studies. These three interrelated professional streams form the cornerstone of the School's academic and research mandate.

The School's program structures encourage interdisciplinary engagement, enabling students to acquire both specialized knowledge and cross-disciplinary competencies. As a result, graduates emerge with a strong professional foundation and the versatility needed to excel in industry, academia, or the public sector.

Alignment with the University Strategic Plan

School Vision: To produce globally competitive land professionals and geomaticians.

School Mission: To develop globally recognized land professionals through high-quality, innovative, technology-driven teaching and research.

The School's direction is guided by the PNGUoT Strategic Plan 2025–2029, particularly its Academic Excellence pillar. The School aligns its systems, curricula, and quality enhancement initiatives with this institutional framework while also addressing related pillars through research, partnerships, and industry engagement.

Benchmarking and Accreditation Progress

Given the professional nature of its academic streams, SSLS continues to pursue benchmarking and accreditation pathways tailored to each discipline. In 2025, the School officially established its Industry Advisory Board (IAB), comprising senior professionals from the public sector, private sector, and professional bodies. The IAB convened its inaugural meeting this year and provided program-specific recommendations, which are now integrated into our benchmarking roadmap.

Property Studies

Engagement with the University of Melbourne has progressed well, with an MOU currently under development. Approximately 50% of the benchmarking activities have been completed, with finalization anticipated by the end of the 2026 academic year.

Surveying and GIS

Benchmarking discussions with the Royal Melbourne Institute of Technology (RMIT) have resulted in initial agreements. An MOU is being developed, with around 50% of the activities completed. Benchmarking is also expected to be finalized by the end of 2026.



2. ACADEMIC PROGRAMS

i. Programs Offered

The School delivers a comprehensive suite of undergraduate and postgraduate programs across its three core disciplines:

Surveying	Geographic Information Science / Geomatics	Property Studies	Programs by External Mode
<ul style="list-style-type: none"> • Bachelor of Surveying • Master of Philosophy in Surveying • Doctor of Philosophy in Surveying 	<ul style="list-style-type: none"> • Bachelor of GIS • Master of Geomatics • Doctor of Philosophy in Geomatics 	<ul style="list-style-type: none"> • Bachelor of Property Studies (Regular and Online modes) • Master of Philosophy in Property Studies • Doctor of Philosophy in Property Studies 	<ul style="list-style-type: none"> • Bachelor of Science in Geomatics • Master of Technology in Remote Sensing and GIS • Master of Technology in Urban and Regional Planning (External)

Year	Surveying			GIS			Property Studies		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	23	4	27	18	12	30	17	18	35
2	27	5	32	12	11	23	20	18	38
3	17	4	21	15	13	28	15	13	28
4	27	6	33	14	7	21	12	9	21

Program	MPhil	PhD
Surveying	2	1
GIS	2	3
Property Studies	1	2

Program	Graduate	Program	Graduate
PhD in Geomatics	1	Bachelor's in Surveying	32
MPhil in Geomatics	3	Bachelor's in GIS	32
		Bachelor's of Property Studies	30
		Bachelor's of Science in Geomatics	6

STAFFING AND INFRASTRUCTURE

Staff Establishment

In 2025, SSLS maintained a total staff complement of 34 across academic, technical, and administrative categories: The School has a staff strength of 34 for the 2025 academic year, constituted as follows;

Surveying:	Academic	Contract Teaching Staff:	5
		Part-Time Teaching Staff:	1
	Technical Staff:		5
<i>Note: Two additional academic staff are required to fill existing vacancies</i>			
GIS:	Academic	Contract Teaching Staff:	8 (incl. 1 on study leave)
	Technical Staff:		1
Property Studies:	Academic	Contract Teaching Staff:	7 (incl. 1 on study leave)
		Part-Time Teaching Staff:	2
Support Staff:	Technical:	Lab Manager	1
	Secretarial:		2
	Janitor:		2

Infrastructure and Resources

The School continued improving its teaching and learning facilities during 2025. Key updates include:

- Ongoing repair and maintenance of classrooms in the Sandover Building;
- Conversion of the former resource room into a postgraduate office (furnishing pending);
- Installation of overhead projectors in most classrooms and laboratories.
- Critical resource needs remain, particularly:
 - A 15-seater bus for fieldwork and practical sessions, given the aging state of the current vehicle (ZSU860);
 - Modern surveying equipment (e.g., total stations, drones);
 - Genuine and updated specialised software relevant to all academic streams.

RESEARCH AND INNOVATION HIGHLIGHTS

Research Outputs

Five research articles were submitted to the Melanesian Journal of Geomatics and Property Studies (MJGPS) in 2025, as also reflected in the Melanesian Land Studies Centre (MLSC) Annual Report.

Conference Participation and Publications

SSLS academic staff demonstrated strong visibility in national and international professional forums, including:

- FIG Working Week / Locate25, Brisbane, Australia (6–10 April 2025): 2 papers
- PIURN 6th Conference, PNGUoT, Lae (1–3 July 2025): 4 papers
- GEOPNG Inaugural Congress, PNGUoT, Lae (21–22 August 2025): 9 papers, 2 workshops
- ASPNG 57th Surveyors Congress, Port Moresby: 7 papers
- Oceania Geospatial Symposium, Suva, Fiji (27–28 November 2025): 1 participant

PARTNERSHIPS AND COMMUNITY ENGAGEMENT

Industry Partnerships

The School strengthened industry and government linkages in 2025 through the establishment of the Industry Advisory Board, comprising representatives from:

- Department of Lands and Physical Planning
- Office of the Valuer General
- National Statistical Office
- Mineral Resources Authority
- PNG Institute of Valuers and Land Administrators
- PNG Association of Surveyors
- Private-sector surveyors, property valuers, and civil engineers

The IAB's inaugural meeting took place from 27–28 May 2025.

SSLS also participated in:

- Formalising the PNGUoT–MRA MOU on training, research, and student development;
- Ongoing efforts to formalize an MOU with the Department of Lands and Physical Planning;
- PNGUoT's partnership with Grow PNG Ltd to deliver training initiatives for agribusiness development in the Markham Valley;
- The Taraka Campus as-built survey for the University's Unicity planning project.

CHALLENGES AND WAY FORWARD

The School's ability to deliver high-quality academic programs continues to depend on improved access to specialised resources and facilities. Critical challenges include:

- Shortages in essential surveying and geospatial equipment, including total stations, drones, and licensed specialized software;
- The urgent need for a replacement vehicle to support field-based teaching;
- Completion of classroom maintenance before the commencement of the Academic Year 2026;
- Collective effort required across all academic disciplines to achieve benchmarking objectives for 2026.

Continued administrative support is vital to sustaining the School's academic excellence, industry relevance, and contribution to national development.





Faculty of Engineering



School of Civil Engineering

Build a strong foundation in engineering principles and practical skills



School of Electrical & Communications Engineering

Dive into the fast-paced world of electrical and communications engineering



School of Mechanical Engineering

Blend theory with application in the dynamic field of mechanical engineering



School of Mining Engineering

Our programs emphasize sustainable and safe mining practices for success in the field



School of Civil Engineering

Introduction

The School of Civil Engineering (SoCE) was born in 2024, previously known as the Department of Civil Engineering, which was established in 1968 at the same time as the then Institute of Higher Education, the prelude to the Institute of Technology and Unitech. It was one of the two pioneer Departments organized with the University, the other being the Surveying and Land Studies Department. In 1971, the Department graduated its first three Civil Engineers, a modest number but history in the making. The exact number of graduates passed out in 1972. The numbers have grown steadily over the years to over 50 in 2017 and up to this year, 2025. As the only Civil Engineering school in the country, we prepare our graduates for the pertinent responsibilities of the industry and for employment destinations across the country.

The Department was established with four main buildings, two of which were destroyed in the fire of 1980. The buildings were rebuilt in 1982. An additional building has since been added to cater for the expansion in the department's services, teaching and research, and material testing requirements. Both the Departments of Mechanical Engineering and Electrical Engineering were guests of the Civil Engineering Department until their respective buildings were completed.

Vision

To be the premier Civil Engineering provider in PNG and the South Pacific that grows world-class Civil Engineers or technocrats for the real world.

Mission

To provide an opportunity to grow world-class Civil Engineers or technocrats through high-quality experiential Teaching & Learning, Research & Development, External Collaboration & Partnerships, Consulting Engineering, Commercial Testing, and Active Community Services with an ardent application of scientific and technological knowledge and innovation in Civil Engineering.

Core Values

To live in a culture of world-class Civil Engineers or technocrats who are honest and accountable for what they do, who are aware and inclusive in a culturally diverse world, who are resourceful, who work innovatively and creatively to meet the fast pace of development with sustainability, and who can work as a team to achieve the vision and mission.

Graduate Statement

The PNGUoT Civil Engineering Graduate will plan, design, construct, maintain, and manage the nation's physical infrastructure professionally and sustainably.

Civil Engineering Graduates Attributes

- Communication
- Problem Solver
- Teamwork
- Ethical
- Lifelong Learning
- Innovative

Alignment with University Strategic Plan

The School of Civil Engineering (SoCE) Annual Report 2025 is the School's summary of its contribution to the realization of the University's year 1 of implementing the 2025-2029 Strategic Pillars of four: 1) Academic Excellence, 2) Research, Innovation & Development, 3) Strategic Partnering, and 4) Operational Excellence.

Update on benchmarking/accreditation

Bachelor of Civil Engineering (Honours), B.Eng. (Civil) (Hons), was fully accredited on the 18 December 2024 (<https://news.pngfacts.com/2025/01/papua-new-guinea-university-of.html?>)

<https://www.engineersaustralia.org.au/sites/default/files/2025-06/engineers-australia-accredited-tertiary-programs-june-25.pdf> , p62

Academic Programs on Offer

The School of Civil Engineering had a refreshed Bachelor's Degree in Civil Engineering named Bachelor of Civil Engineering (Honours), B.Eng. (Civil) (Hons), which started in 2019 and is a Washington Accord fully recognized program confirmed in 2024. Full Accreditation of the Program, Bachelor of Civil Engineering (Honours), B.Eng. (Civil) (Hons) was granted on 18 December 2024 (<https://news.pngfacts.com/2025/01/papua-new-guinea-university-of.html?>) and the continuous improvement goes on.

There are two Master's Programs by coursework with a project Thesis on offer. These programs are: 1) Master's in Engineering (M.Eng.) and 2) Master of Science in Solid Waste and Resource Management (MScSWRM). This is in addition to the current research-only programs, such as the Master of Philosophy (MPhil) and Doctor of Philosophy (PhD). . The Master of Engineering, specialized in Structural Engineering, MEng (Civil-Structural), is running in its second year, with two students and two intakes in the first year. There is one student on the MEng specializing in Environment. There is also one student now in year 2 for the Master of Science in Solid Waste & Resource Management (MSc SWRM).

Degree	2019 Commencing Cohort			2020 Commencing Cohort			2021 Commencing Cohort		
	Commence	Graduate	% Complete	Commence	Graduate	% Complete	Commence	Graduate	% Complete
	2019	2023		2020	2024		2021	2025	
Civil Engineering (Hons)	48	32	66.7	49	21	42.8	48	44	91.6

Staffing & Infrastructure

In 2025, the teaching staff at the SoCE consisted of 41% nationals (three full-time lecturers and three part-timers) and 59% Expatriates (4 online). Serving the school are two (2) admin assistants and three (3) auxiliaries. There were six (6) Technical officers distributed across six laboratories, as follows: Concrete Laboratory, Geotech Laboratory, Structures Lab, Transport Lab, including TracsLab, as shown in the figure; Hydraulics Lab, and Environmental Lab. The TracsLab is a new addition to the list of our Laboratories at the School of Civil Engineering.

This year, our new equipment includes the Water Treatment Plant. The Kobal's Library continues to operate, and its personnel are cataloguing the books. We received a donation from Mr Lazaro Hemestberger of Stocks & Partners, who was an active alumna and a former Deputy Head of School in 2018.



Figure 1. TracsLab - a collaboration with UNSW



Figure 2. Kobal's Library, a School holding

Research & Innovation Highlights

Notable research/innovation projects undertaken

- Global Virtual Conference in Civil Engineering (GVCCE) 2025
- Global Journal of Civil Engineering (<https://portal.issn.org/resource/ISSN/2523-9597>)
- International Labour Organization (ILO) collaboration as a provider in the Capability Building of Government Engineers and contractors in the transport sector for the EU-STREIT PNG Program.
- Collaboration with the UEMC, BIM CYPE campus license
- Tunnelling Society Collaboration and Membership
- Incubation Hub. The prototypes are housed at the Ron Lane Student Centre, (waste2wealth.mystrikingly.com).
- Civil Engineering Day

List of Journal Publications

The staff maintained their eagerness to research and publications. A total of 3 articles in the indexed journals, 2 in non-indexed journals, 5 book chapters, and 10 conference papers were published in 2025.

Partnership & Community Engagement

Universities, Industries & Other Institutions

1. UNSW - collaboration in both academic and laboratory settings
2. CTGU - collaboration in both academic and laboratory settings
3. UERM - connect us to CYPE Engineers and facilitate in the MoU
4. CYPE - through a Memorandum of Agreement for a Building Information Management (BIM) Campus License software from CYPE, year 2 of 3
5. Geoscience Australia (GA) - collaboration in earthquake research - microzonation and vulnerabilities of buildings
6. International Labour Organization (ILO) - collaboration in providing training to contractors and the government in project management & procurement

CECU

Earned K 152,392.80, an increase of 1.3% from last year's K116,777.98, from consultancy in our laboratories, such as Geotechnical, Structural, Concrete, and Environmental Engineering.

Challenges & Way forward

The School of Civil Engineering's (SoCE) research equipment purchase presents a challenge, and collaboration with industries and other government and private agencies is required to support the in-house and outsourced Professional Work Experience of the following students during the vacation. The SoCE classrooms have actively provided support for student study time during the night. Several talks on Professional Development were conducted by professionals at the Student Learning Center and online, which provide opportunities for students to interact with industry experts to see how engineering concepts are applied in the real world



School of Electrical & Communications Engineering

Introduction

The School of Electrical and Communication Engineering at the Papua New Guinea University of Technology (PNGUoT) is one of the university's prominent academic units. The school is expected to deliver tangible outcomes beneficial to all stakeholders through its professional expertise and research capabilities, aligned with several key National Strategies, Developmental Plans, and Policies. The school maintains strong ties with industry partners, which aid in curriculum development, student internship opportunities, collaborative research, and Proposed Centres. The school's present strengths are Communication Engineering, ICT, and Electrical Power Engineering. Furthermore, the SoEE is revitalizing its strengths in renewable energy and computer engineering. The school will recruit qualified staff and provide facilities that meet international benchmarking standards. These will be necessitated by establishing laboratories and research centers, and further through postgraduate training.

Vision

To be at the cutting edge in teaching and research, generating and applying electrical engineering knowledge, and graduating globally competent professional electrical engineers with high ethics and human values.

Values

In pursuit of our vision, the SoEE will be guided by the following core values:

- Providing equal opportunity for education to students in Electrical and Communication Engineering through academic merit and character.
- Developing and maintaining partnerships with industries, professional groups, and other educational and research institutions at both national and international levels.
- Encouraging a climate of transparency, fairness, and cooperation among the staff members and the students.
- Practicing sustainable use of resources
- Fostering an ethical workplace environment.

The SoEE's mission and values are consistent with the core business of the PNG University of Technology, which is based on quality teaching, learning, and research. In 2024, the School of Electrical Engineering, along with the other three engineering schools within the Faculty of Engineering, achieved full accreditation from Engineers Australia, graduating world-class technocrats. The Engineering Accreditation Commemoration Event was held on 30th June 2025

Academic Programs on offer (undergraduate, postgraduate, short courses)

Brief of programs on offer, including new programs and/or changes

- a. The School of Electrical Engineering offers an honours program with two majors: power and communications. The school offers the following four-year academic programs leading to:
 - Bachelor of Electrical Engineering (Honours) – Major in Power
 - Bachelor of Electrical Engineering (Honours) – Major in Communications

The four-year honours program is accredited under the Washington Accord through Engineers Australia.

The field of study includes: electric machines, power systems, drives, renewable energy, signals and systems, data communications, mobile networks, antennas, information theory, signal processing, embedded systems, control systems, automation, and artificial intelligence.

- b. Bachelor of Computer Engineering (Honours) The SoEE is introducing a new program in Computer Engineering. The school expects 30 students in the first intake of students in 2027. The new degree program in computer engineering has the potential to double the number of undergraduate students in the SoEE over the next 5 years.
- c. Master of Communication Engineering
 - Coursework + research project.
 - Designed for advanced professional skills and applied research.
- d. Master of Philosophy (MPhil) in Electrical Engineering
 - Purely research-based.
 - Suitable for students aiming at academic or specialized industry careers.
- e. Doctor of Philosophy (PhD) in Electrical Engineering
 - Full research program.
 - Focused on original contributions to Electrical & Communications Engineering.
- f. Electrical Engineering Alternative Pathways Program (EE-APP) The EE-APP is a strategic, globally recognized solution to PNG's education bottleneck, empowering thousands of school leavers with practical engineering and ICT skills while reinforcing PNGUoT's mission to produce world-class technocrats. The EE-APP will deliver:
 - City & Guilds accredited TVET certificates and diplomas in fields that will address the needs of the nation including Electrical Engineering, Electronics, Telecommunications, ICT, and Automation & Control. Cisco Networking Academy programs in data networking, programming, cybersecurity, AI, and computer hardware. Candidates are prepared to take the certification exam. The local academy has been in operation since 2001.
 - Huawei International Academy programs in data net-

Program	Enrollment 2025	Graduating 2025 (Anticipated)
Bachelor of Engineering	71	41
Master of Engineering Science	0	0
Master of Philosophy	7	3
Doctor of Philosophy	2	1
Electrical Engineering Alternative Pathways	27	38

Staffing and infrastructure

Staff numbers (academic, admin, new staff, promotions, or training)

- a. The school is equipped with four professors in power, communications, electronics, and embedded systems. There is an associate professor, two senior lecturers, and six lecturers. In addition, there are seasonal academic staff who support academic programs by lecturing, tutoring, demonstrating labs, and participating in research projects.
- b. The technical team is headed by the laboratory manager, which consists of two principal technical officers, senior technical officers, and technical officers.
- c. The administration and auxiliary team are always on hand to serve clients and upkeep the school facilities.
- d. Staff Development:
 - Competitive Research grant writing workshop, Lae, MP – Mr James Dugumari and Mr Herman Kunsei attended and participated in the workshop.
 - Three lecturers undergoing PhD training in the SoEE – Mr David Chen, Mr Joshua Yunako, and Mr Herman Kunsei.

Infrastructure/resources (upgraded facilities or new resources and equipment)

- a. Four lectures and tutorial rooms that are shared by all programs. Four computers are operational with overhead projectors or interactive smart screens for instructions. These dedicated laboratories are used for data communications, modeling, 3D CAD drawings with 3D printing, and high-end computing for doing research.
- b. A new postgraduate room has been set up to cater to their dedicated need for a permanent space in the school.
- c. There are plans to build a PCB printing and hatching laboratory for embedded systems and IoT development, as well as research activities requiring the design, fabrication, and testing of electronic devices or components.

Research and Innovation Highlights

Strategically, the school continues to pursue long-term goals of sustained excellence in research through postgraduate studies. The school academics continue to publish research articles in peer-reviewed journals and book chapters. The school has also established two research centers; 1. Centre of Excellence in Information and Computer Technology (CoEICT) and 2. Center of Innovation in Smart Grid and Renewable Energy (CoISGRE).

Publications/conferences/grants/collaborations

- a. Higher Education Professional Linkage Program award to Mr Herman Kunsei to participate in the Australian Microwave Symposium in February 2026 at Gold Coast, Australia. The award enables academics and professional staff from Papua New Guinea (PNG) universities

This initiative is designed to: Strengthen linkages between PNG and Australia, Enhance the quality of academic programs, promote research collaboration, and improve administrative systems and practices

- b. Supporting the partnership with ITU on the Digital Transformation Center initiative. Mr Herman Kunsei, center lead, travelled to the Dominican Republic to attend the annual Global DTC Workshop on the theme of Overcoming Challenges in the day-to-day operations of the DTC. The workshop was held from 10th to 12th June 2025.
- c. Participation in the 6th edition of the Pacific Islands Universities Regional Network Conference, 1 – 3rd July 2025. On the theme “Harnessing technologies for the safe and sustainable development of the Pacific”.
- d. Higher Education Partnership grant with Australia Awards PNG for the improvement of the capstone project through the final year subjects EN411 and EN421. The SoEE is leading the project with Mr Herman Kunsei as the team leader. The first workshop will be at UQ at the end of January 2026.
- e. The school, represented by Professor Raj Kumar and Mr. Elise Mandawali, took part in the Digital Transformation Summit held from 24–27 November 2025 at The Stanley Hotel, Port Moresby. Insights gained from the summit will guide and strengthen the school’s research and innovation in ICT, with impact extending across Papua New Guinea and beyond.

Partnerships & Community engagement

Industry Partnerships – key collaborations with the private sector/government/NGO

- a. PNGUoT, through the school, has partnered with the University of Queensland (UQ) through a grant from the Australia Awards PNG Higher Education Partnership program. The initiative focuses on improving capstone project delivery, supervision, and assessment within the Faculty of Engineering. As part of the project, there will be staff exchanges and workshops held both at UQ and on the PNGUoT campus.
- b. Kinect Limited: Technical partner with the School of EE, in the Smart Village Project. Kinect is a Kacific Authorized Distributor, making it easy and fast to access technical and admin support for our sites.

Community impact projects – outreach, awareness, community initiatives

- a. Smart Village Project: The project, launched with Kinect Limited and funded by the APNIC Foundation, aimed to test the viability of community Wi-Fi in remote rural areas. It has stalled due to technical and planning challenges, but has attracted interest from USAID and a telemedicine research team at the University of Queensland, Australia. To continue, it requires financial support and will move forward in partnership with UAS at NICTA.

Challenges	Way Forward
a. Teaching and Learning	
<ul style="list-style-type: none"> ● Student approach to learning has been declining, thus impacting the quality of the delivery and mastery of subject matter by the students. Weak students in mathematics tend to struggle in the second- and third-year EE specialized subjects. 	<ul style="list-style-type: none"> - Additional application workshop for the struggling students
<ul style="list-style-type: none"> ● Staff implementation of student-centered learning is missing most subject delivery. 	<ul style="list-style-type: none"> - More specialized workshop
b. Research Activities	
<ul style="list-style-type: none"> ● Cumbersome process to access research funding 	<ul style="list-style-type: none"> - Develop a better approach within the policy. - Redo the policy to reduce the cumbersomeness
<ul style="list-style-type: none"> ● Align the development goals to make research progressive and impactful. ● Lack of research funding 	<ul style="list-style-type: none"> - Complete the training on writing research offered by TLMU for all staff and form research groups.
c. Professional Work Experience	
<ul style="list-style-type: none"> ● Lack of understanding between the industry and the university makes it harder to get placements 	<ul style="list-style-type: none"> - A vigorous drive by the ILO to get understanding going. - More interaction and activity by the SIAC - More structure on the implementation of the process
<ul style="list-style-type: none"> ● Lack of monitoring and evaluation of the process in the industry 	<ul style="list-style-type: none"> - Develop or acquire a monitoring tool for the faculty.
d. Training and Development	
<ul style="list-style-type: none"> ● Lack of mentoring in the school 	<ul style="list-style-type: none"> - Creation of working groups - Pairing of senior and junior staff to enable the initiation of a succession plan.



School of Mechanical Engineering

1. Introduction

The School of Mechanical Engineering at Papua New Guinea University of Technology was established in 1973 and is one of the oldest departments in the university. It supports engineering education at bachelor's, master's, and PhD levels for students from all island countries in the South Pacific, except Australia and New Zealand. Since its establishment, the School of Mechanical Engineering at PNGUoT has been dedicated to excellence in teaching, research, and industry collaboration. To support its sustainable growth, the school adopted the university's strategic plan for 2025-2029. Based on this strategic vision, an operational plan and a succession plan have also been prepared. The school is also engaged with national communities from PNG to deliver projects for mutual benefits. Students enrolled in the Bachelor of Mechanical Engineering (Honors) are also encouraged to align the objectives of their final-year projects with the country's socio-environmental problems.

The school received the full accreditation of its Bachelor of Mechanical Engineering (Honors) from Engineers Australia under the Washington Accord and also gets recognition from the Department of Higher Education, Research, Science & Technology (DHERST). In compliance with the accreditation guidelines, the school developed and implemented new curricula and introduced new subjects reflecting contemporary developments in the field, starting with the academic year 2019.

The school made continuous efforts to develop national and international partnerships and collaborations with industry, and established linkages with international institutions and partners like Lawrence Tech University in the United States, Concordia University in Canada, Brisbane University of Technology and University of New South Wales in Australia, American Society of Mechanical Engineers and the Institute of Mechanical Engineers from the United Kingdom. The school signed a Memorandum of Understanding to partner with the "University of Malaysia, Perlis" and the "University of Malang, Indonesia" for collaborative research work.

Vision

The School of Mechanical Engineering aims to achieve national and international recognition by attracting, rewarding, and retaining outstanding academics, students, and support staff. It also aims to make an increased contribution to scientific research at an international level.



Mission

In view of the growing and developing in many industrial fields in the Pacific islands and keeping abreast of the continuous scientific and technological development in the field of mechanical engineering, the School of Mechanical Engineering sees its mission to:

- Educate competent, ethical, and moral graduates of high quality and in sufficient numbers to serve the needs of Papua New Guinea and its neighboring island countries of the South Pacific in the field of Mechanical Engineering.
- Develop a strong graduate program to enhance scientific research, active commercial and community service operations to further serve the needs of the country and the above-mentioned geographical area.

2. Academic Programs

2.1 Program overview

The school offers both undergraduate and post-graduate degree courses. The undergraduate course leading to the degree Bachelor of Mechanical Engineering (Honors) involves four years of full-time study post Grade 12 entry. The postgraduate degree courses offered by the school are Master's of Engineering (MEng), Master of Philosophy (MPhil), and Doctor of Philosophy (PhD).

2.2 Enrolment and graduation statistics

The school proudly announces that 57 students received a Bachelor of Mechanical Engineering (Honors) Degree in the year 2025.

2.3 Postgraduate students

- In 2025, 5 Postgraduate Students (4 MEng and 1 MPhil) have enrolled in the School of Mechanical Engineering.
- Mr. Sacchi Nareo and Mr. Max Aiso are in the process of graduating with their Master of Engineering thesis within the School of Mechanical Engineering at PNGUoT.

2.4 Continuous Improvement efforts in curriculum upgradation

- The school has also received approval to offer three additional elective subjects; one in the 3rd year and two in the final year this year. This initiative will further support the School's objective of enhancing students' expertise across diverse and emerging domains.

3 Staffing and Infrastructure

The Mechanical Engineering School is supported by a well-qualified and experienced team of faculty and technical staff dedicated to excellence in teaching, research, and student development. A balanced team of faculty members comprising young, middle-level, and experienced academics with national and international credentials and scientific research experience is one of the significant strengths of the school. The school currently comprises 8 faculty members, including 2 Associate Professors, 4 Senior Lecturers, 1 Lecturer, and 1 Principal Technical Instructor, along with 8 technical staff who provide essential support for laboratory sessions and research activities, and 2 Secretaries and 2 Janitors.

To complement the academic program, the school has well-equipped laboratories, including Workshop, Manufacturing Process, Materials Science and Engineering, Thermodynamics, Heat Transfer, Theory of Machines, Fluid Mechanics, CAD, FMS, and Renewable Energy. During the current academic year, new laboratory equipment has been installed to enhance experimental capabilities and support advanced student projects. The newly added instruments are the Lathe tool dynamometer, the Furnace, and the Viscosity meter.

4 Research and Innovation Highlights

The School of Mechanical Engineering fosters a strong culture of research and innovation among faculty and students. The school's research activities focus on addressing real-world engineering challenges and advancing knowledge in emerging technologies. Faculty members are actively engaged in funded research projects, international collaborations, and interdisciplinary studies that contribute to sustainable engineering solutions. Some of our academics are appointed as external examiners for PhD and Master of Engineering dissertations and theses by several foreign Universities.

4.1 The ongoing innovative research projects by academic staff are as follows:

- Preparation of Al-based metal matrix composites through powder metallurgy method and evaluating its suitability for various applications in corrosive environments: The primary objective of this research is to develop aluminum matrix nanocomposites reinforced with MgO and TiO₂ nanoparticles and analyze their mechanical, physical, and chemical properties.
- Bio-fuel Production from Copra Meal: The biorefinery approach to biofuel production from Copra Meal (CM) can be a great approach to optimize the production of biofuels. CM produced can be further extracted for biodiesel production through the transesterification process.
- Using Computational Intelligence for Sustainable Manufacturing of Advanced Materials: This research highlights how computational intelligence techniques can promote resource and environmental sustainability across manufacturing systems and operational practices.
- Computational Intelligence in Industry 4.0 and 5.0 Applications Trends, Challenges, and Applications: This research examines applications that merge three key disciplines: computational intelligence (CI), Industry 4.0, and Industry 5.0. It presents solutions using Industrial Internet of Things (IIoT) technologies, augmented by CI-based techniques, modeling, control, estimation, application, systems, and future scope.

- Artificial Intelligence, Geographic Information Systems, and Multi-Criteria Decision-Making for Improving Sustainable Development: The Asia-Pacific region, home to some of the world's fastest-growing economies, faces a range of complex challenges, including environmental degradation, the increasing frequency of natural hazards, and rapid urbanization. Addressing these issues, which many countries worldwide face, requires innovative, interdisciplinary approaches to promote sustainable development and enhance resilience.
- Thermal Engineering Solutions in Industry 4.0: Strategies for Carbon Neutrality: This research emphasizes filling a critical and timely gap at the intersection of thermal engineering, Industry 4.0 technologies, and sustainability.
- Utilizing the Nutrient Potential of Crop Residues and Leaves as Livestock Feed and Fertilizer to Improve Soil Nutrition on the University of Technology Campus: This project aims to revolutionize agricultural sustainability by utilizing innovative shredding technologies. By employing advanced techniques to shred crop residues and leaves, we can unlock their nutrient potential and turn them into essential livestock feed and soil-enrichment resources on the University of Technology campus.
- Ocean Wave Energy Converter: Harnessing the Power of the Pacific Ocean. This study focuses on wave energy as a renewable source in Papua New Guinea. It will analyze existing research and new data collected from the proposed extraction site to enhance understanding of wave energy and its potential to create a sustainable energy sector.

4.2 Research outcomes from undergraduate students:

- Poster presentation at IEOM Bali Conference by Mr. Henry Kila and Mr. Daniel Kale on 06/Aug/2025 in virtual mode through Zoom.
- Poster presentation at the IEOM Melbourne Conference by Mr. Stoney Daniel and Miss. Aurora Takendu (Paper accepted, presentation scheduled on 25/Nov/2025 in virtual mode).
- Mr. Stoney Daniel is going to participate in the IEOM Melbourne conference in Nov. 2025 physically and is also able to secure sponsorship for the same.
- Research paper by Mr. Japhat Korowa and Mr. Joshua Akoman (2025 graduates) accepted for publication in the Interdisciplinary Journal of Papua New Guinea University of Technology (IJPNGUoT).

4.3 Number of scientific research outcomes in 2025:

- International Journal : 38
- Internationally Published Book Chapters: 4
- Conference Proceedings: 2
- Books Published: 4

5 Partnerships & Community Engagement

5.1 External collaboration activities:

External collaboration activities are actively pursued to strengthen academic-industry linkages and promote interdisciplinary learning. Partnerships with leading industries, research institutions, and international universities facilitate joint projects, expert lectures, internships, and research opportunities, enriching the academic experience and enhancing student employability. The following activities have been achieved during 2025:

5.1.1 External Collaboration with Universities

- MoU: The school signed an MoU for partnering with the “University of Malaysia, Perlis” and “University of Malang, Indonesia,” and collaborative research work is also currently going on.

In the year 2025, the School of Mechanical Engineering produced three research outputs through international collaboration. Two publications resulted from joint research with the University of Perlis (UniMAP), Malaysia, and one publication from a collaboration with the University of Malang, Indonesia. These partnerships reflect the School’s continued commitment to strengthening international research engagement and enhancing global academic cooperation.

Looking ahead, the School aims to further expand its collaborative research network with international universities, focusing on renewable energy systems, advanced manufacturing, and sustainable engineering design. Ongoing discussions with partner institutions in Malaysia and Indonesia are expected to result in joint supervision of postgraduate research and the development of co-authored publications, thereby reinforcing the School’s global engagement and research excellence.

5.1.2 External Collaboration with Industries

- Two students have been transitioned into permanent professional roles at Newmont - Lihir Operations as graduate trainees.
- Guest Lecture: The School of Mechanical Engineering hosted two guest lectures to provide students with insights into current trends, emerging technologies, and real-world engineering challenges.
- Industrial visit (field trip) to nearby industries, including “Coca Cola”, “Star Mountain Paper Corporation”, “South Pacific Brewery”, and “Yonki Hydro Power Station” in 2025. Regular industrial visits are integrated into the curriculum to expose students to real-world engineering practices and industrial operations.



Guest Lecture on 02/May/2025 by Mr. Mr Neil Kelly, Engineering Manager, Lega Industry, Lae on the topic “Maintenance Management Practices in Industry”.



Guest Lecture on 05/Sep/2025 by Mr. Durgaprasad Pandey, Plant Manager, Operations Department, Paradise Foods, Lae, on the topic “Role of Engineering in Food Manufacturing Operations”



Coca Cola Europacific Partners, Lae
Date of Visit: 27/MAR/2025



Yonki Hydro Power Station
Date of Visit: 16/JULY/2025



YStar Mountain Paper Corporation Limited, Lae. Date of Visit: 13/AUG/2025



South Pacific Brewery Limited
Date of Visit: 20/AUG/2025

5.2 Community Engagement

- The School of Mechanical Engineering successfully hosted the Final Year Project (FYP) Presentations on October 13–14, 2025, featuring 26 innovative, year-long projects developed by final-year students under the course EN421 Final Year Project.

Supervised by academic staff and evaluated with the participation of Mr. Mark Thomas, Chairperson of the School Industrial Advisory Committee (SIAC), the event highlighted strong collaboration between academia and industry.

Students demonstrated their ability to apply engineering knowledge and research skills to solve real-world challenges in alignment with the United Nations Sustainable Development Goals (UN SDGs). Projects covered diverse themes, including renewable energy systems, AI-driven predictive maintenance, industrial optimization, and sustainable community technologies, such as solar-powered water supply and micro-hydro systems. The event underscored the school's commitment to producing industry-ready, innovative, and socially responsible engineers capable of driving national development and sustainability.

- The traditional sago production process in a rural village, as shown in the image. This ancient technique is culturally significant and has been passed down through generations, playing a vital role in meeting the village's nutritional needs. Therefore, improving the efficiency and output of sago processing is essential.

6 Challenges and way forward

Challenges:

- The school continues to address challenges related to sustaining external research funding, upgrading laboratory and computational facilities, enhancing student participation in research and innovation, and strengthening collaboration with industry and professional bodies.
- Ensuring that every student completes the required 450 hours of Professional Work Experience (PWE) before graduation remains a significant challenge. Securing sufficient internship placements and coordinating with industries continues to be difficult.
- Organizing industry visits for 2nd-, 3rd-, and 4th-year students once per semester is also challenging. Nearby industries have limited availability, making it difficult to secure appropriate time slots for student groups.

Way forward:

- Interviews for two faculty positions and two technical staff positions have recently been completed. Offer letters have already been issued to the selected faculty candidates, one at the Senior Lecturer level and one at the Associate Professor level, who are expected to assume duties in 2026. The newly recruited technical officers are also expected to join in 2026.
- The school plans to pursue greater engagement with industry and research partners, encourage faculty-led and student-driven research aligned with national priorities, and progressively modernize laboratory infrastructure. Emphasis will be placed on integrating emerging technologies, promoting professional practice skills, and fostering innovation and entrepreneurship to meet the Engineers Australia Stage 1 Competency Standards.



School of Mining Engineering

1. Introduction

The School of Mining Engineering in the Faculty of Engineering is a leading academic school offering two (2) programs: Bachelor of Engineering in Mining Engineering (Honours) & Bachelor of Engineering in Mineral Process Engineering (Honours). Both programs are also serviced by an Applied Geology course. The two programs have been recently accredited by Engineers Australia under the Washington Accord.

The School is committed to excellence in mining education, research, and industry engagement within the mineral resources and energy sectors in Papua New Guinea. In 2025, the school sustained its trajectory of growth and innovation, emphasizing curriculum relevance, impactful research, and strategic partnerships to produce industry-ready graduates and advance mining, mineral processing and oil & gas sector knowledge, which is the ultimate mission of our school. Our degree programs are in par with other international universities such as in Australia, USA, Canada, UK and Europe that offer the same programs.

The School of Mining has continued to make great strides in the key areas of main strategic pillars with the guidance of our Mission and Vision.

Our Mission

- To deliver dynamic mining and mineral processing engineering educational programs to graduates who excel in their chosen field, have a positive impact on their communities and become industry leaders.
- To undertake applied, strategic and dynamic research that trains future researchers to take nationally and internationally leading role in their field, support the development of sustainable extractive industries and enable major problems to be solved.
- To engage with key stakeholders through relevant professional activities to assist individuals, businesses, community and the government to achieve sustainable mining and other small-scale mining activities in enclave communities.

Our Vision

- To be the best engineering school of innovation, high class engineering education and research activities that can make a positive difference to sustainable mining in Papua New Guinea.

The School of Mining Engineering continues to make improvements to align with the University Strategic Plan 2025 – 2029.

- Full Accreditation of the two programs
- Benchmarking of courses in progress with Curtin and James Cook Universities
- Partnership with University of New South Wales (UNSW) through Faculty of Engineering
- Preparations underway for empowerment and engagement of staff with UNSW in 2026
- Ties with Industry partners through Industry Advisory Committee (IAC) continues to be strengthened
- Ongoing Post Graduate studies on real-world issues faced by the industries
- One PG student completing, one PG student in final year
- Alumni from Newmont and Ok Tedi Mines engaged for guest lectures in Semester 2
- Consultation work for Morobe Consolidated Goldfields Limited by Dr. Ken Ail to increase internal revenue
- All staff engaged were assessed through formal Interviews and Performance Evaluation before awarded new Contracts

2. Academic Programs on offer (undergraduate, postgraduate, short courses)

- The School of Mining offers two programs: Bachelor of Engineering in Mining Engineering (Honours) and Bachelor of Engineering in Mineral Process Engineering (Honours).
- An Applied Geology course services the two programs
- Bachelor of Engineering in Petroleum Engineering is scheduled to start in 2027
- Change of School name is being discussed at IAC level
- Proposed School name: School of Petroleum, Mining and Metallurgy
- Total intake is 50: 25 Mining (18 SL and 7 NSL) and 25 Mineral Processing (18 SL and 7 NSL)
- School graduation statistics, 60% are Mining and 40% are Mineral Processing

- Mining graduates, 90% are male and 10% are female
- Mineral Processing graduates, 80% are male and 20% are female
- Current PG students: Mr. Brian Nokondopa (MPhil), Mr. Joseph Tera (MPhil), Ms. Michelle Maiti (MPhil) and Mr. Stanley Rungwa (PhD)
- Unfortunately, no short courses were run in 2025

3. Staffing and infrastructure

- Dr. Jai Meena, Mr. David Pakne, Mr. Rolland Mark (Mining) and Mrs. Blackie Korul Yayabu (Mineral Processing) recruited through formal interviews in preparation for the 2026 academic year
- Ms. Tracey Vokain (Mineral Processing) who is completing her studies in March 2026 at Akita University, Japan has expressed interest to join the School
- Recruitment for a Geologist in progress
- Recruitment for Technical staff in progress
- Professional staff, Mr. John Selan, recruited to support Ms. Padine Gaiwari
- Dr. Ken Ail and Dr. Wilson Kobal promoted to Senior Lecturers
- Dr. Ken Ail attended Training Program on Internal and External Funding Innovation
- Teaching equipment have been installed and commissioned in the Mining and Mineral Processing laboratories
- Teaching equipment at the Geology lab are yet to be installed
- Research equipment have been submitted to the Accreditation Office for purchase
- Master plan for the extension of the Geology laboratory has been approved, work yet to start
- After more than 15 years of service, the 25-seater Coaster bus (CAT 664) donated by Ok Tedi through PNG Chamber of Mines and Petroleum (now PNG Chamber of Resources and Energy (PNG CORE)) was auctioned
- Plans are underway to purchase a 4-Door Land Cruiser which will be utilised for student field trips

4. Research and Innovation Highlights

- Notable Research: By MPhil student Mr. Brian Nokondopa on the use of a new glycine combined with cyanide for metal extraction. The new approach will now see low dosage of cyanide compared to what's currently being used in mines around PNG. The trialed chemical is owned by a Czech-based chemical company, Draslovka, who operate out of Curtin University, Western Australia
- Notable Research: By MPhil student Ms. Michelle Maiti who is also an employee at Ok Tedi Mining Limited. Michelle is working on strategies to contain and utilise mine wastes
- Notable Research: By PhD candidate Mr. Stanley Rungwa who is working on phytoremediation of wasteland as a result of mining activities
- Presentation: Harnessing garcinia cymose f. pendula Leaf Powder for Eco-Sustainable Chromium Biosorption. Joseph Tera, Prasanna Kumar and Jim Lem, December 2025
- Presentation: Reducing cyanide consumption for gold-silver ores containing reactive copper using glycine-cyanide synergistic leaching, Brian Nokondopa, John Witne and Wilson Kopal. PG Seminar, October 2025
- Preprint: Information Statement for targeted Resource Development – A Summary Statement for the Government of Papua New Guinea for Targeted Resource Development to Simulate Sustainable Economic Growth. Ken Ail, May 2025
- Presentation: Estimating the Economic Benefits of Mining ABG'S Mineral Policy and Legislation Development and Community Consultation. Ken Ail, May 2025
- Article: Production of ferric ammonium sulfate (FAS) dodecahydrate from pyrite (FeS₂). Wilson Kopal, Rachel A. Pepper, Jose A. Alarco, Wayde Martens and Sara Couperthwaite, April 2025
- Article: Analysing the Performance of Mineral Tax Instruments of Papua New Guinea. Ken Ail, January 2025

- Article: A Critical Review of Book: The Taxation of Mineral Rent by Garnaut Ross and Clunnies Ross, 1983. Ken Ail, January 2025
- Article: Cost Benefit Analysis of Re-Developing the Panguna Copper-Gold Mine in Autonomous Region of Bougainville. Ken Ail, Peter Kolotein, Emmanuel Morinagu and Johnny Barou, January 2025
- Book Chapter: The Impact of Digital Tools on Modern Research Practices: The Role of Institutional Review Boards (IRBs) in Research Ethics – Advanced Research Techniques Theories, Methods and Practices (Volume-2). Prasanna Kumar and Wilson Kopal, January 2025

5. Partnerships & Community engagement

- Industry partnership in the form of Tookie "Angus" Memorial Scholarship introduced in 2025 with first intake in 2026: 2-Year Master of Philosophy (MPhil) Program in recognition of Mr. R. Stuart "Tookie" Angus, who was the founding chairman of K92 Mining Inc.
- Dr. John Witne, Dr. Ken Ail and Mr. David Pakne involved in Alluvial Mining community awareness through the office of Mineral Resources Authority (MRA)
- Dr. Ken Ail attended a Mining Conference in Sydney in December
- Dr. Wilson Kopal attended an Engineering International Education Development Workshop at UNSW, Sydney in November

6. Challenges and way forward

- Due to high-paid salaries in the Extractive and Energy sectors, it's always difficult to retain or attract qualified professionals
- Alumni engagement through Guest Lectures
- Training of local staff to obtain higher degrees
- Academic staff for the 2026 academic year in order/No more online lecturers



Faculty of Humanities



School of Business Studies

Our holistic programs emphasize business principles, ethics, and global perspectives



School of Communication & Development Studies

Combine communication theory with practical skills to navigate complexities in diverse cultural and developmental contexts



School of Business Studies

The School of Business Studies (SBS) at the Papua New Guinea University of Technology (PNGUoT) is the largest of the thirteen academic schools, serving more than 1,000 undergraduate (on-campus and online) and postgraduate students each year. It is a multidisciplinary school with a strong track record of producing national, Pacific-region, and international leaders

Vision & Mission

- Vision: To provide a high-quality education with real-world relevance, preparing students to think critically and globally, act ethically and locally, and communicate effectively.
- Mission: To produce graduates who manage effectively, solve problems creatively, communicate clearly, learn continuously, think critically, and act ethically.

Professional & Academic Staff

SBS is staffed by a dedicated, nationally and internationally recognized team. - Key leadership includes:

- Head of School: Dr. Adimuthu Ramasamy
- Deputy Head of School: Mr. Rodney Naro

Academic Sections:

- Accounting: Headed by Mr. Bapa Bomoteng
Applied Economics: Headed by Mr. Theo Michael.
- Information Technology: Headed by Ms. Francisca Pambel
- Business Management: Headed by Mr. David Kelvin Programs

Undergraduate:

The four undergraduate programs offered by the school aim to produce graduates qualified for a professional career in Accounting, Applied Economics, Business Management, and Information Technology.

- Accounting (Bachelor of Business – Accounting)
- Applied Economics (Bachelor of Business – Applied Economics)
- Business Management (Bachelor of Business – Management)
- Information Technology (Bachelor of Business – IT)

Postgraduate:

The school offers a comprehensive range of postgraduate programs and research opportunities in Accounting, Applied Economics, Management, and Information Technology, designed to propel your career and empower you to contribute to the future of business in Papua New Guinea and beyond.

- Master of Applied Economics Master of Applied Accounting
- Master of Business Administration (MBA)
- Executive MBA (EMBA)
- Master of Philosophy (MPhil) in areas such as Accounting, Economics, Information Technology and Management
- Doctor of Philosophy (PhD) programs in Information Technology, Accounting, Economics and Management

Research and Innovation Highlights:

Academic Section	Books	Book Chapters	Journals	Conferences/ Workshops/ Seminars
Accounting	2		2	
Applied Economics			2	1
Management		1	4	MPhil/PhD2
IT	1		4	Student Project-1

Partnerships and Community Engagement

- Short Course-Accounting for non-accountants facilitated by Mr. Mathew Kussa.
- PNG National Research Institute (NRI) and the Bank of Papua New Guinea (BPNG) on joint research and publications.

A public Lecture hosted by the Queensmen Society of Economics, PNGUoT. The presenter was a researcher from Dev. Policy Centre-ANU.

1.1

- The notable key industry collaboration was initiated by Ms. Nancy Laena and authorized by the school for our BBMA 3 students to visit the SP Brewery Plant in Lae in semester 1.



1.2 Final year student project-Clinic management presented to ED-HR, Dr. Das and HEO



1.3 Staff also participated in a STEM Education conference supported by Australian Awards.

Focus

The conference features practical STEM engagement benefitting educators across primary, secondary, and tertiary sectors, government decision-makers, and includes local and international STEM experiences, perspectives and exhibits. *(Personal view: it is more for those who are new to the STEM Concept)*

Main Themes

- **Problem Solving and Critical thinking** - Apply pedagogical practices to develop problem-solving, critical thinking and innovation.
- **Diversity and Inclusion of Girls** - Practical application of STEM approaches for inclusion of girls and other marginalised groups.
- **Sustainable Pedagogical Practice** - Practical application of pedagogy to build practice through real-world problems.
- **Hands-on STEM Workshops** - All workshops will be hands-on and engaging with a focus on learning and teaching.

- Ms. Pambel secured K40,000 to establish the Digital Innovation Hub, supporting student innovation and project-based learning.

Research & Centres

- The school has a strong research focus, with dedicated research centres:
- Big Data Analytics & Intelligent Systems (BAIS)-integrating business intelligence, AI, intelligent systems, and data analytics.
- Centre of Innovation & Entrepreneurship - promoting innovation, mentorship, business-model development, and SME incubation.
- Proposed Centres: The school is working toward establishing a PNG–China Centre of Business Studies and a PNG–Australia Centre of Governance & Policy Development.

1.4 Strategic Partnerships & Initiatives

- The school collaborates with CPA PNG through a joint MBA / CPA program. (Note: this was part of the Department before restructuring; if still relevant, you may want to confirm current status.)
- It runs short courses via its Entrepreneurship Centre, training SME owners in design thinking and entrepreneurship. (Your original text mentioned a partnership with Global Handong University in South Korea; this may still be relevant to note, depending on whether it's continuing.)
- Benchmarking is in progress and set to pick up momentum in 2026 in preparation for the accreditation exercise subsequently.

Future Directions & Growth

Benchmarking for all programs is scheduled for completion around mid-2026. Consultations are currently ongoing with the relevant partner organisations and stakeholders. Accreditation processes will commence once the benchmarking phase has been completed.

CHALLENGES AND WAY FORWARD

Key Challenges

- Urgent need for a new School of Business building with adequate lecture rooms, computer laboratories, staff offices, meeting rooms, and modern teaching facilities.
- Shortage of academic staff, especially in Applied Economics and BBIT, leading to high student–staff ratios and heavy teaching workloads.
- Insufficient classrooms and learning spaces, causing frequent clashes, oversized classes, and limited student engagement.

- Outdated software, limited computer labs, and a lack of access to essential digital learning tools, restricting research and modern teaching delivery.
- Increased workload from online teaching, post-graduate supervision, and extended program delivery.
- Power interruptions and unstable internet connectivity frequently disrupt classes and online course delivery.

Way Forward

- Secure approval and funding for a new purpose-built School of Business complex to fully accommodate teaching, research, and administrative needs.
- Recruit additional lecturers and senior academics in Accounting, BBIT, and Applied Economics to stabilize staffing and improve teaching quality.
- Develop an Economic Data Lab and expand BBIT computer laboratories to support digital learning, data science training, and advanced research.
- Invest in updated software, digital tools, and modern teaching technologies across all programs.
- Improve access to international research databases to enhance research quality and increase staff and student publications.
- Strengthen accreditation and benchmarking activities, including CPA-PNG standards and AACSB-aligned initiatives.
- Expand industry partnerships to improve internship placements, student projects, and collaborative research.
- Enhance postgraduate learning and research capacity through structured support programs and targeted training.



School of Communication & Development Studies

1. Introduction

Brief overview of the school, including vision and mission.

The School of Communication and Development Studies (SCDS) is a humanities- and social science-based academic school within a predominantly science- and engineering-focused university in Papua New Guinea. The School was initially established to support the science and engineering schools, primarily to teach English writing skills to students in those disciplines; this important function continues today. While still fulfilling this initial function, it now operates as a full academic school offering degree programs, reflecting ongoing changes in the university, industry, and society as a whole through a number of academic and administrative changes.

The Communication for Development (C4D) is a unique program offered to students in this School. It is a social science sequence that uses communication to change and motivate people through education and inspiration towards national development. The aim of communication, as a tool, is to encourage people's participation through education, where they are informed, taught, and inspired to participate in any development process. Students and graduates in this program are expected to be communicators of development, meaning that they will be competent to assist citizens in both urban and rural settings in working together to improve their quality of life, both as individuals and as a collective.

Our School Mission Statement

To become a leading humanities and social science-based academic School, both in Papua New Guinea and in the Pacific Islands Region.

Our School Vision

To develop and offer relevant academic courses and professional programs, to initiate and carry out theoretically grounded policy research, and to provide engaged community service. All of these activities aim to cultivate broad human knowledge and appropriate skill levels, develop innovative and creative abilities, and instill discipline and proper conduct in the larger society.

Alignment with University Strategic Plan

The School of Communication & Development Studies strengthens PNGUoT's Strategic Plan by complementing its technological focus with social sciences, communication, and ethical development. This synergy ensures graduates are well-rounded—innovative, ethical, and capable of advancing both national and regional development.

Update on benchmarking/accreditation

- Benchmarking study initiated in 2022 by Prof. Silvia Florea (Lucian Blaga University of Sibiu).
- Compared PNGUoT's Communication for Development program (BACD, formerly BTCD) with international programs in Australia, Philippines, and Turkey.
- Aim: improve quality assurance, align with international standards, and raise program level from PNGNQF 7 to NQF 8.
- UNICEF C4D standards used as a common framework for analysis.
- The SCDS Benchmarking Program is planned across 4 pillars, and a pillar per semester over 2 years. It began in Semester 1, 2024.

SEMESTER 1, 2024: MODULE 1 - Curriculum Revision & Implementation

SEMESTER 2, 2024: MODULE 2 - Faculty Development

SEMESTER 2, 2025: MODULE 3 - Student Graduate Tracking & Support

Focused on student success during study and post-graduation. Implemented graduate tracking surveys (2021–2024) to assess employability and satisfaction.

Findings: Graduates are equipped with strong communication and teamwork skills.

Strategic directions: Strengthen industry partnerships and internship pipelines. Enhance student support structures (academic, professional, personal). Promote innovation and collaboration with external partners.

SEMESTER 1, 2026: MODULE 4 - Infrastructure Assessment (Pending)

Will address facilities, resources, and physical/technological infrastructure to support program sustainability.

Overall Achievements & Positioning

Three modules (Curriculum, Faculty, Student Support) were fully completed by 2025. BACD program now recognized as:

Academically strong and internationally benchmarked.

Societally relevant, bridging theory and practice for real-world development challenges.

Strategically positioned as a national hub for communication expertise in PNG.

In summary:

The 2025 Benchmarking Project shows SCDS has successfully modernized its curriculum, strengthened faculty capacity, and improved student support and graduate outcomes, with infrastructure upgrades as the final step toward full transformation.

Academic Programs on offer (undergraduate, post-graduate, short courses)

Brief of programs on offer (including new programs and/or changes)

- (a) **Current:**
Undergraduate - BACD
Postgraduate – MCS, MPhil & PhD

Short Course – Occupation, Health & Safety

(b) Proposed “New Programs”:

Undergraduate – Bachelor of Arts in Conflict Resolution, Security & Peace (BACRSP)

Postgraduate – Master of Organizational Leadership (MOL)

Enrolment and graduation statistics

SEMESTER 1		SEMESTER 2	
On-Campus		On-Campus	
Year 1	46	Year 1	43
Year 2	47	Year 2	50
Year 3	35	Year 3	39
Year 4	36	Year 4	41
TOTAL:	164	TOTAL:	173
Online		Online	
Year 1	43	Year 1	27
Year 2	35	Year 2	28
Year 3	6	Year 3	6
Year 4	2	Year 4	2
TOTAL:	86	TOTAL:	63

2025 graduates - BACD = 53
- Diploma = 1

Staffing and infrastructure

Staff numbers (academic, admin, new staff, promotions, or training)

- Academics – 17
- Part-time (Tutor) - 1
- Admin Officers – 1
- IT Officer – 1
- Secretaries - 2
- New staff – Dr Clara Reshma
- Staff on Training (PhDs) – 3 (Mrs Maino, Mrs Makara & Mrs Langa)
- Promotions: - 2
Mr Jack Yaro (Lecturer 1) & Ms Patricia Gamong (Secretary 2)

Infrastructure/resources (upgraded facilities or new resources and equipment)

- a. SCDS Building Complex – the design and costing were submitted through the Projects Office, and it is still pending.
- b. Online Smart Classroom – CD Classroom 209 is the Pilot Project by the PNGUoT Online Education Program, PNGUoT ICT, and DATEC. We hope to connect the other 3 classrooms on this platform.

Research and Innovation Highlights

Notable research projects undertaken.

Starza, P. (2025-2028). The Sago Food Security Project is currently being developed to implement an inclusive co-design process to strengthen food security in Western Province, Papua New Guinea. The project is done in collaboration with ACIAR, University of Canberra, Western Sydney University, Victoria University (NZ), PNGUoT, Divine Word University & National Research Institute.

Starza, P. (2025). A research project is currently investigating how arms & ammunition are smuggled into the Highlands of PNG. Increased use of high-powered arms is having a negative impact on the lives of people and property.

Starza P. & Sali, G. (2025). Research report on the Socioeconomic Impacts of the Baiyer-Madang Road.

Publications/conferences/grants/collaborations

a) Publications: 7

b) Conference & Workshop Presentations

- Conference Presentations: 9
- Workshops Attended: 1

c) Collaborations

Professor Eric Gilder is co-editor (With Dapsy Olatona, Rosemary S. Adu McVie, and Rajashekhar Rao B.K.) of *A Compendium of Contemporary AI and Smart Agriculture Perspectives from the Pacific Universities*, Cambridge Scholars Press (UK) (in press).

In 2025, Professor Eric Gilder had a continuing collaboration with the Lucian Blaga University of Sibiu (LBUS) on the following:

- i. SCDS BACD Degree Quality Benchmarking Process (conducted with Professor Silvia Florea of LBUS).
- ii. Editorial Work for the School's journal, JCDS: Journal of Communication and Development Studies. (Professor Florea is co-editor.) Note: The 2024-2025 JCDS volume is now being compiled.
- iii. External Doctoral Studies supervision and examination processes. (He has been a habilitated professor [Philology] at the Institute for the Organization of Doctoral and Post-Doctoral Studies [IOSUD] at LBUS since August 2020.)
- iv. "Strategic Communication and Public Relations" online Masters class (in cooperation with East China University of Science and Technology [ECUST Shanghai] Sino-European International Business School, and LBUS).

Professor Eric Gilder also had further international collaborations and outreach in 2025:

- i. As Academic Coordinator of the Scientific Council of the "Jean Bart" Chair, House of Europe (EU-ROLINK), Bucharest, Romania, in the domain of lifelong learning in higher education and professional training for policymakers.
- ii. He was presented with a bespoke compilation of research, Education, Communication, Culture, and Conscious Governance: From Evolutionary Anthropology to Participatory Evolution by Adrian Zarif, an Educational Trainer of "Sociocracy: A New Paradigm of Governance," in Bucharest on 7 November.

Wilma Langa participated in the Asia Pacific Academic Mentoring Program at the Australian Academy of Science in Canberra, Australia, 1-3 September.

Partnerships & Community engagement

Industry Partnerships – key collaborations with the private sector/government/NGO

MOU

- c. National Gaming Board (PWE)
- d. MRDC (PWE & Scholarships)
- e. Chongqing Normal University of China and PNGUoT (on Jointly Cultivating Undergraduate Students in International Chinese Language Education)

MOA

Grow PNG Ltd (Training of Trainers)

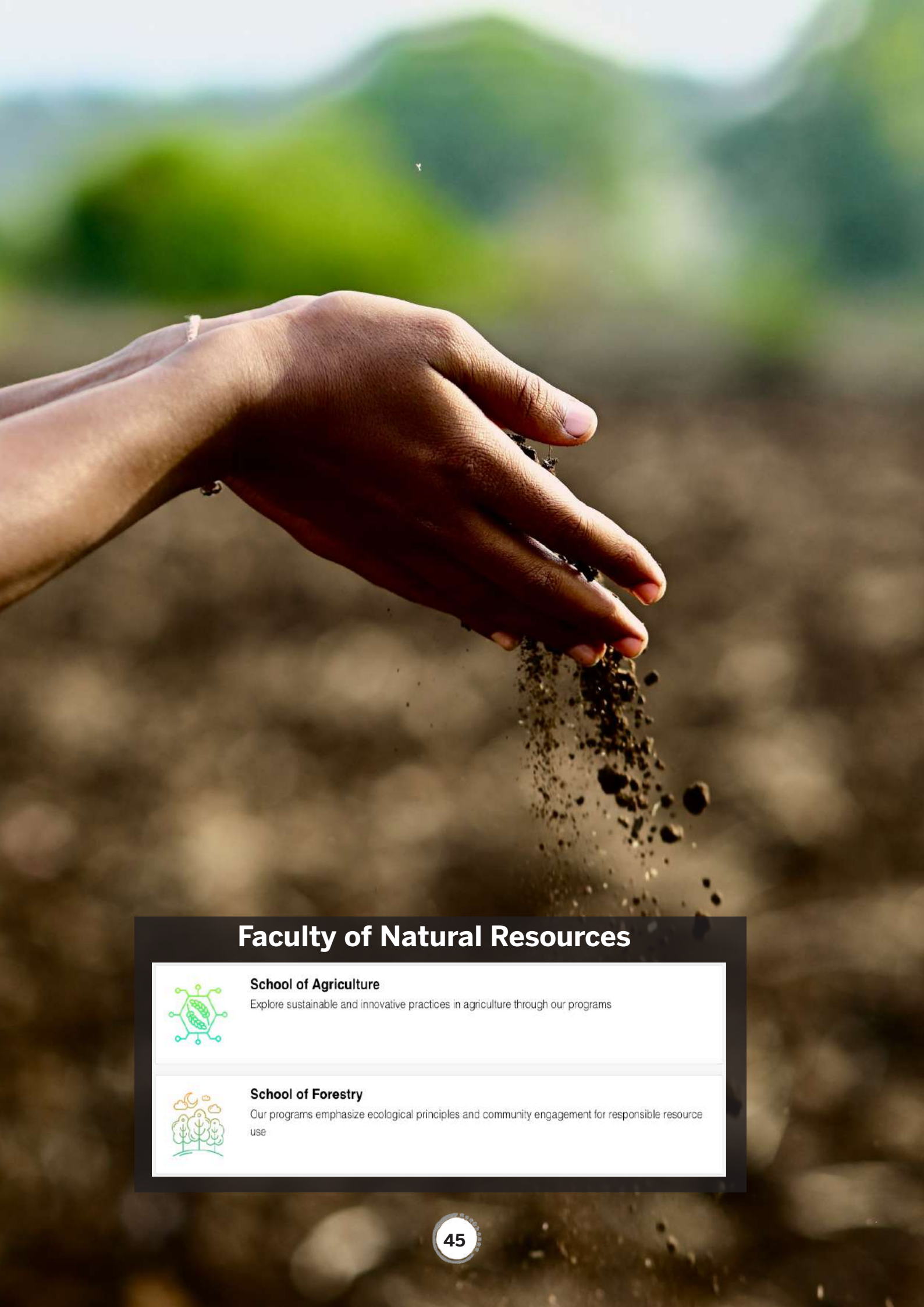
Community impact projects – outreach, awareness, community initiatives

- a. Ragitamut Community Water Supply (Mutzing District) – (facilitating the engagement of ATCDI)
- b. Sankwep Investment Ltd Limestone Project (Nabag) - Social Mapping & Clan Vetting & Environmental Impact Assessment (Proposed collaboration between 3 Schools – SCDS, SSLS & SoF)
- c. Patep Irrigation System – Collaboration between University of Goroka, NARI, ACIAR Research Director (Australia), PNGUoT (SCDS), FRI.

Challenges and way forward

SCDS Building space – as the student population increases, we need bigger classroom sizes. t
Online Program Staff Capacity – the online student population is progressively increasing each year. So, DODL and HR need to consider the recruitment and remuneration package for this.

Benchmarking and Curriculum Review – the Benchmarking Program so far has been appreciated by the CDS academics in facilitating our approach towards reviewing our current curriculum to NQF8 level.



Faculty of Natural Resources



School of Agriculture

Explore sustainable and innovative practices in agriculture through our programs



School of Forestry

Our programs emphasize ecological principles and community engagement for responsible resource use

School of Agriculture

Introduction

The School of Agriculture offers a strong science-based agriculture curriculum for undergraduate and postgraduate degree programs, utilizing the latest advances in the field. Our graduates have gone on to great careers, and our staff have won research grants from international partners, including research collaborations and institutional linkages. Our community outreach programs through SPISARD are strengthened by building model village centers. The School continues to build academic and technical staff by recruiting and training them to strengthen capacity for teaching, research, publication, and community outreach programs of the School. Infrastructure development to strengthen teaching, research, and student training is perpetually upgraded and/or built. The school's bench making is 80% completed, and we are looking forward to completing the remaining balance by 2026. We've thus had many team successes, including enhancing the student learning experience, facilitating research excellence and impact, enabling community engagement, and growing our revenue through the school's farm.

Our School Mission

- To deliver dynamic agricultural science educational programs to graduates who will excel in their chosen fields, have a positive impact on their communities, and become industry leaders.
- To undertake applied, strategic, and dynamic research that trains future researchers to take nationally and internationally leading roles in their field, support the development of sustainable agricultural industries, and enable major problems to be solved.
- To engage with key stakeholders through relevant professional activities to assist individuals, businesses, the community, and government to achieve sustainable agriculture, rural industries, and communities.

Our School Vision

- Be a premier agricultural school providing world-class agricultural education to empower graduates to be innovative scientists, extensionists, entrepreneurs, and policy makers for sustainable agriculture and community development.

Our Objectives

- Deliver quality undergraduate and postgraduate agricultural education for sustainable agriculture development.
- Create a strong community presence in innovation and technology transfer.
- Conduct research and publication to generate knowledge.
- Promote hard work, teamwork, and linkages to fulfill the missions of the university and school.

Academic Programs

- The school offers two undergraduate programs. The Bachelor of Science in Agriculture [B.Sc.(Ag).] is a full-time four-year on-campus study program, while the Bachelor of Agriculture and Rural Development (B.Ag. & R.D.) is a flexible, distance-mode administered program. The School also offers three postgraduate degree programs, the Master of Science in Agriculture [M.Sc.(Ag)], Master of Philosophy (M.Phil.), and Doctor of Philosophy (PhD). The M.Sc.(Ag) program is a combination of coursework and research, while PhD and M.Phil study programs are research - only degrees.

Three more MSc programs are being worked on and will be ready for Academic board approval in 2026, including Agricultural engineering, Agribusiness, and Agricultural extension. The latter program will be offered on the distance model. The total number of students enrolled in the B.Sc.(Ag) and B.Ag. & R.D. programs in 2025 were 226, with 184 and 42 students, respectively. In 2025, 39 and 16 of the 2024 year graduated with B.Sc.(Ag.) and B.Ag. & R.D., respectively. The total postgraduate enrolment was 35 students, of whom 10 were in PhD programs, 10 in M.Phil. programs, and 15 in M.Sc. (Ag) programs. In 2024, 3 students graduated with MPhil (Ag), and 6 students graduated with M.Sc.(Ag). The curricula of our programs are reviewed regularly to be able to deliver up-to-date and relevant information to students.

Staffing and Infrastructure

The school has 17 qualified academic staff (14 PhDs, 2 MPhils, and 1 MSc), together with a wealth of teaching and research experience. Staff members use a variety of Learning Management Systems (LMS) for both classroom and distance-mode teaching, and the school offers a robust curriculum. All classrooms are equipped with audio-visual aids to support effective classroom teaching. Annual procurement of consumables for teaching and research, and maintenance of lab equipment, has ensured sufficient skills development in students through lab sessions. In 2024, in preparation for program benchmarking, renovations to labs, lecture rooms, staff offices, and farm infrastructure were completed, with some ongoing. In 2024, the first phase of benchmarking for the school's program was completed, with the second phase to follow in 2026. Vacant positions for two academics and one technical staff were advertised and filled early in 2024. Additional teaching staff were sourced from highly qualified technical staff with an MSc. qualification for part-time teaching.

Benchmarking and Accreditation

One of the decisions PNGUoT took on board was the internationalization of its programs, with which the School was positive. External assessors, especially faculty members from an Australian university (Professor Gavin Ash, Charles Sturt University) having an existing partnership with the School, were invited to assess the programs offered by the School. The School, under the leadership of Professor Macquin Maino, worked on his recommendations on the programs, the teaching facilities, and overall office space for academic and technical staff. The School also initiated an affiliation with the Australian Council of Deans of Agriculture (ACDA) in 2022 for a 3-year membership tenure. Its affiliation was due to the ACDA's Terms of Reference, which were fitting to the School's needs and to the purpose of benchmarking its programs, thus international accreditation. The benchmarking exercise is ongoing, and a representative from ACDA, Professor Tina Acuna (Tasmanian Institute of Agriculture, University of Tasmania), has been tasked with the assessment in 2024. Eighty percent of the benchmarking had been accomplished by the School, with 20% of the task yet to be completed. The School is working on her recommendations to complete the remaining 20%. Some of the activities yet to achieve include the establishment of a greenhouse facility, staff research publication updates, among others.

Aside from this exercise, one of the school's teaching and research laboratories (see Section 3.8 of this document), now PNG Analytica, has been working towards obtaining accreditation from NATA Australia since 2021. This accreditation will be achieved when funding becomes available.

Support Service Sections

The School of Agriculture houses four service sections, including Unitech Biotechnology Centre (UBC), South Pacific Institute of Sustainable Agriculture and Rural Development (SPISARD), PNG Analytica Limited, and the Unitech Agriculture Farm (UAF). These Sections provide functions involving teaching, research, community outreach, and income generation. Commercial activities at the PNG Analytica have increased, with commercial clients. The school's farm reached an agreement to supply dressed chickens to the University students' mess, which started in June 2023 and continued in 2024. The Farm supplies the mess with 1000 dressed broiler chickens per week, as well as eggs and pork. A shop has been set up to sell farm-fresh eggs, chickens, and pork meat to the University Community. With the growing demand for fresh eggs, the farm has started building a new 10000-capacity egg layer shed in 2024 and is expected to be completed in early 2026. The nursery for cocoa clones was set up and has supplied almost 10000 cocoa clones to Wafi Gold Mine Extension Services in 2024 and early 2025.

Research Activities

The school has several significant research collaborations including Ramu Nico Mines, for research and development in farm/farmer rehabilitations, and research into phytoremediation, 2024 to present,

MoU & MoA with Chongqing Normal University, China, for the development of Rice Research Centre, 2025, MoU with Nanfan National Agriculture Research Institute (Sanya), Chinese Academy of Agricultural Sciences for Wild Rice Research and development, 2025, BSF Research and Training collaboration with PNGUoT, NARI and icipe (through ACIAR), 2024 to present, and Village Chicken Genetics study program collaboration between PNGUoT, NARI and University of Adelaide, 2024 to present.

Two staff members, Mr. Nick Kewa and Mr. Timothy Bafiec, enrolled in 2024 to pursue doctorate studies, with research funds made available through the CSIRO project, approved in 2023. Colleague academics, Professor P. Manus and Dr. R. Rao, are respectively involved as principal supervisors to the candidate. This research is managed by the ERMC, PNGUoT. The Unitech Biotech Centre (UBC) continues to conduct research in collaboration with the FPDA for micropropagation of potato. Research involving molecular research has been further enhanced by the procurement of a nano-drop, an instrument that can quantify DNA in a sample, and freeze and dry samples for safe transportation overseas for further studies.

Besides these collaborative research programs, research in the School is also undertaken by the third-year undergraduate students, postgraduate students, and academic staff and addresses issues concerning the broad subject categories, including crop sciences, animal sciences, economics and management, extension and development, farm mechanization, and postharvest technology. In 2024, 52 students undertook supervised research for the subjects, AG312 and AG322. Research topics of the postgraduate students are highly relevant to meet the requirements of the stakeholders, and several of the post graduates are jointly supervised by staff from research institutions and commodity industries such as, National Agriculture Research Institute (NARI), New Britain Palm Oil Limited (NBPOL), Ramu-Agri Industries Ltd (RAIL), and Oil Palm Research Association (OPRA). A total of 35 postgraduate students were involved in research as part-fulfilment of their respective levels of study. The school staff members, either alone or in collaboration with postgraduate students, published 6 peer-reviewed journal articles in 2024. Academics also jointly presented 10 conference papers.

Industrial Relationship

The school considers active academic and professional relationships with external institutions and industries as an important linkage that would facilitate benefits in knowledge, skills, and services. The school continues to work in partnership with several national and international organizations, such as; Australian Council of Deans of Agriculture (ACDA), Support for Rural Entrepreneurship, Investment and Trade in Papua New Guinea (STREIT), Outspan PNG (OLAM), ACIAR/CSIRO, GrowPNG Ltd, Innovative Agro Industries (IAI), Trukai Rice Industries and many others. The school's linkage to the external national organizations is also actively maintained through the engagement of our students on annual Work Integrated Learning (WIL). In 2024, students were engaged by more than ten organizations throughout PNG to complete WIL. Recent national and international partnerships being forged are Ramu Nico Mine, Chongqing Normal University of China, Nanfan National Agriculture Research Institute of China, ACIAR, and NARI.

Community Engagement

For community engagements, SPISARD is the conduit through which the school channels its outreach activities. Community-based livelihood-enhancing activities were conducted in provinces such as Oro, Central, Eastern Highlands, East Sepik, Jiwaka, Western Highlands, and Southern Highlands. A detailed annual report from SPISARD is normally submitted to the office of the Deputy Vice Chancellor through the Head of School of Agriculture.

In 2024, the school continued to implement the instruments of a five-year MOU signed in 2022 between PNGUoT and Trukai Rice Industries. Under this agreement, several established or prospecting rice farmers throughout PNG received two training sessions at the University's Taraka Campus. This partnership continues to facilitate the transfer of knowledge, skills, and technology to participating individuals, groups, or organizations across the country.

Notable Highlights

- There has been increased commercial activity at the Agriculture Farm. The Farm entered into a contract with the University students' mess to supply livestock meat and crop produce. The Farm started supplying the mess with 1000 dressed broilers per week in June 2023 and continued in 2024 and 2025. A 1000-layer unit is under construction and will be in operation in 2026. These are significant infrastructure for teaching, research, and money generation.

- Establishment of Model Village Centres in Amara, Popendetta, Oro; Markham, Morobe; Kapari, Abau, Nebilyer, Western Highlands, and Ambunti, East Sepik. These centers got started in 2023 and are ongoing in their development.
- In 2023, in preparation for program benchmarking, the school renovated its laboratories, lecture rooms, postgraduate study room, staff offices, and the reception area. In 2024, the first phase of the benchmarking was completed. The second phase will be completed in 2025/2026
- One expatriate academic staff member was successfully recruited from Nigeria in 2024 and started lecturing in 2025. A further two recruited in 2025 will begin work in 2026.
- As part of the restructure, Professor Macquin Maino was elevated in 2024 and assumed the Dean of the Faculty of Natural Resources in 2025.
- Professor Peter Manus was appointed as the new Head of School of Agriculture in 2024 and assumed office in 2025.
- Professor Rao was appointed acting Dean of the School of Postgraduate Studies in 2024 and assumed office in 2025.
- Academic staff offices were renovated to create an office for the Dean of the Faculty of Natural Resources in 2025. The Dean is now housed in the School of Agriculture building.
- Three new MSc programs in Agricultural engineering, Agribusiness, and Rural Extension were developed in 2025 and will be presented to the Academic Board for approval in 2026.
- Black Soldier Fly (BSF) rearing is in the planning stages and will be established in March/April 2026. This facility will be used to convert agricultural waste into soil amendments/fertilizer for crop production. In this instance, the facility will be used for teaching, research, and generating technologies for sustainable farming.

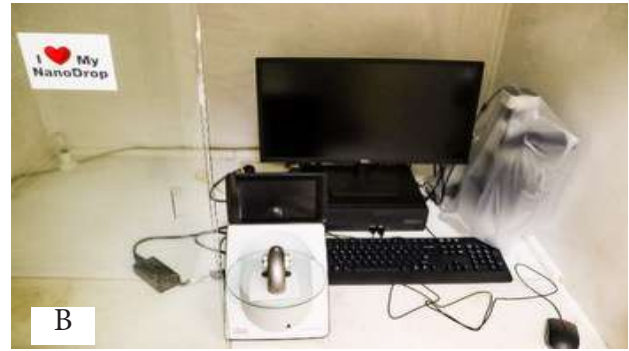


Figure 1: A. ICP Optical Emission Spectrometer for plant and soil nutrient analysis at PNG Analytica, B & C. Nano drops for quantifying the amount of DNA in extracted samples and portable adjustable temperature Freeze dryer of samples safe shipment of sample overseas at Unitech Biotechnology Centre, D. Unitech Farm fresh shop at the Union Complex, E. and F. New 10000 capacity broiler shed layer shed under construction at Unitech Farm respectively, G. Cocoa clone nursery at 10000 capacity supplying Wafi Gold Mine Extension Program. H. Cocoa budwood garden.

Challenges and way forward

The School is ending the 2025 academic year with many success stories: delivering both undergraduate and postgraduate programs, training and recruiting academic staff, new infrastructure for rearing broilers and layers, and BSF, new MSc programs, establishing community outreach centers, and benchmarking programs for our educational programs. The School views the benchmarking as academically strategic. It not only drives new developments to complete benchmarking, but also where to go from there after benchmarking. It challenges the School to be strategic in building and strengthening teaching and research capacity, community work for building sustainable community livelihood systems, proactive in sourcing and generating funds, linking with industry to strengthen academic programs needed by them, building partnership with international donors for infrastructural development, building partnership in research and development collaboration both within and internally, all of which are intended to enhance the quality of academic programs on offer and produce the manpower the society needs.





School of Forestry

1. Introduction

The School of Forestry operates across three campuses (Taraka, Bulolo, Bumbu), and trains professional foresters for the sustainable management of PNG's forest resources. The School's 2025 strategic direction aligns with the University's vision, and its Five-Year Strategic Plan covers 14 thematic areas, from ecosystem services to climate change and appropriate technology.

Alignment with University Strategic Plan

Key strategic initiatives in 2025:

- Benchmarking of Forestry programs with the University of Canterbury (New Zealand) to advance international accreditation
- Curriculum mapping with the University of Papua New Guinea on emerging global themes (Nature-based Solutions, Inclusive Green Growth, Carbon Market Mechanisms)
- Strengthening research partnerships across the Asia-Pacific region

Benchmarking and Accreditation Progress

Following the completion of comprehensive benchmarking in 2024, communication was established with the University of Canterbury in 2025 to meet benchmarking requirements. This collaboration paves the way for international accreditation of undergraduate programs (BScF, BFRM, Diploma programs) to meet global standards and demonstrate commitment to excellence.

Academic Programs

Taraka Campus:

- Bachelor of Science in Forestry (BScF) – 4-year program
- Postgraduate programs (MSc, MPhil, PhD)

Bulolo University College:

- Diploma in Forestry (DipFor) – 3-year program
- Bachelor of Forest Resource Management (BFRM) – 4-year program

TFTC/Bumbu Campus:

- Diploma in Wood Science and Technology – 2-year program

Postgraduate Enrolment (2025)

The School enrolled 14 active postgraduate students (10 MPhil, 4 PhD) conducting research across diverse forestry themes. Key highlights:

- Christine Pokana (MPhil Year 2): CIFOR-ICRAF scholarship recipient researching Queen Alexandra's Birdwing Butterfly ecology
- Israel Penu (MPhil Year 2): Mangrove forest diversity and carbon stock assessment - awaiting external examination

- Ms. Ivy Kiele (MPhil Year 2): Impacts of the Root System of Selected PNG Tree Species on Soil Erosion and Maintenance of Essential Plant Growth Nutrients - awaiting external examination

Staffing and Infrastructure

Staff Composition

The School maintained approximately 39 academic staff across three campuses with key leadership:

- Associate Professor Cossey K. Yosi (Head of School), Dr. Jimmy Moses (Deputy Head/Research Coordinator), Professor Yusuf Sudo Hadi (Post-graduate Coordinator), Mr. Leonard Wana (Examination Coordinator)
- Mr. Simeon Morean (TFTC Director), Mrs. Moira Spairong (TFTC Deputy Director)
- Mr. Olo Gebia (BUC A/Director), Mr. Louis Veisami (BUC Deputy Director)

Staff Professional Development

PhD Completion:

- Mr. Peter Edwin successfully submitted his PhD dissertation to the University of Melbourne (July 2025), expected graduation in January 2026

New PhD Enrolment:

- Mr. Billy Bau accepted into PhD program at IPB University, Indonesia (August 2025-2028)



Figure 1: The L.J. Brass Memorial Herbarium with botanical samples catalogued and stored.



Mr. Billy Bau at the IPB University, Indonesia, and the current Herbarium curator.

Capacity Development:

- Mr. Leroy Moripi applied for the JICA 2026 SDGs Global Leader Scholarship, focusing on sustainable forest management

Infrastructure

Key infrastructure assets:

- Forestry computer lab with 30 workstations supporting student tutorials and staff training
- Solar Kiln Timber Dryer for research and commercial services
- L.J. Brass Memorial Herbarium is maintained under Mr. Bau's curation, including the Nursery and Arboretum.

Research and Innovation Highlights International Conference Presentations

- Professor Yusuf Sudo Hadi invited as keynote speaker at IPB University, Indonesia (December 2025)
- Associate Professor Cossey K. Yosi attended the PIURN Summer Institute conference, University of South Pacific, Fiji (November 2025)

Research Grants and Scholarships

- CIFOR-ICRAF Scholarship awarded to Christine Pokana's MPhil study program
- IPB University Scholarship awarded to Billy Bau's PhD study program

Research Collaborations International:

- CIFOR-ICRAF: EU-funded Managalas Project (Oro Province) supporting butterfly conservation

- IPB University, Indonesia: Wood science research and PhD partnership
- University of Melbourne, Australia: ACIAR-funded forest management research
- Harvard University, USA: Plant taxonomy collaboration



Figure 1,2,3: MPhil student Christine Pokana's research collaboration with CIFOR-ICRAF, NBPOL and the Managalas

Figure 3: Students and faculty engaged in diverse laboratory activities, 2025

National:

- PNG Forest Authority, PNG Forest Research Institute: Joint research and student placements
- Santos, TotalEnergies-PNG: Private sector research partnerships



Figure 4: IFTA activities, including butterfly collections. IFTA currently utilizes the School of Forestry's entomology facility-

Partnerships and Community Engagement Academic Partnerships

- University of Canterbury, New Zealand: Primary benchmarking partner for accreditation
- CIFOR-ICRAF: Active MoU implementation with EU-funded conservation research

Industry and Government Engagement

- PNG Forest Authority: Student PWE placements and research collaboration
- PNG Forest Research Institute: Postgraduate supervision and herbarium collaboration
- Private Sector: Santos and TotalEnergies-PNG research partnerships

Commercial Activities

- The Insect Farming and Trading Agency (IFTA) remained operational, supporting community partnership programs. Staff: Ms. Christine Pokana (Technical Officer in Charge) and Ms. Tina Brunga (Technical Assistant).

Challenges and Way Forward

Key Challenges

- Infrastructure: Limited four-wheel-drive vehicles hamper fieldwork, affecting research data collection
- Research Publication: Output in high-impact journals requires strengthening
- Staffing: Multiple staff on study leave reduces teaching availability

Strategic Way Forward

- Immediate Priorities (2025-2026)
- Complete benchmarking and accreditation process with the University of Canterbury
- Invest in vehicles and field equipment
- Expand journal access and develop research supervision policy
- Strengthen research collaborations (international and national)
- Integrate climate change and nature-based solutions into the curriculum

Long-term Vision

The School of Forestry remains committed to producing world-class forestry professionals equipped for 21st-century challenges. Through strategic benchmarking, international accreditation, enhanced infrastructure, expanded research collaborations, and a culture of research excellence, the School will continue advancing PNG's sustainable forest management while contributing to global forestry knowledge and innovation.



Bulolo Univerity College - Bulolo Campus

Introduction

- The PNGUoT Bulolo Campus, the country's first forestry training institution, delivers a four-year Bachelor's in Forest Resource Management (BFRM) program with a progressive curriculum that develops graduates for careers across the forest sector.
- Its vision is to be a leading institution in Forest Resource Management, with a mission to produce high-standard forestry professionals through teaching, research, entrepreneurship, and community service aligned with the PNGUoT Strategic Plan 2025-2029. The BFRM program is in its third year, with benchmarking and accreditation planned upon full program completion in 2026.

Academic Programs on offer (undergraduate, postgraduate, short courses)

- Bachelor's in Forest Resource Management (BFRM): The BFRM program, introduced in 2023, is now in its third year of implementation.
- Bachelor's of Science in Forestry (BSCF): Bulolo Campus hosts second-year BScF students, who complete Year 2 at Bulolo before returning to Taraka Campus to finish their program.
- Diploma in Forestry (DFOR): The Diploma in Forestry program concluded in 2024, with its final cohort graduated in May 2025. The graduation was held at the Bulolo campus.
- Adult Matriculation Program for DODL PNGUoT: Bulolo Campus continues to deliver the AMP under DODL, PNGUoT.
- PNGUoT Online Program: The campus facilitates assessments for the Bulolo District students enrolled in online programs across various PNGUoT Schools.

Enrolment and graduation statistics

- The number of students enrolled this year is tabulated below.

Level	No. of Students enrolled		Total	Comments
	Male	Female		
BFRM 1	23	12	35	3 students (1 female & 2 males) discontinued their studies.
BFRM 2	14	5	19	1 student discontinued her studies.
BFRM 3	20	11	31	Pioneer students.
BSCF 2	19	17	36	From the main campus.
Total	76	45	121	

- The 2025 academic year closed with a total of 117 students at PNGUoT Bulolo Campus, comprising 74 male and 43 female students. Four students discontinued their studies.
- The DODL AMP enrolled 89 students in Semester 1 and 58 students in Semester 2.
- The number of students who graduated under the Diploma program is tabulated below.

Program	Number of Students Graduated		Total	Comments
	Male	Female		
DFOR	15	12	27	Final Diploma graduates.

Staffing and Infrastructure

Staff numbers (academic, admin, new staff, promotions, or training)

- Table below lists the staff numbers:

Status	Ceiling	Current Number	New Staff	Comments
Academic	12	10	0	(10 x permanent and 2 x part-time)
Technical Support	6	5	0	All permanent
Admin Support Staff	19	13	1	(including Admin staff, 1x Nurse, 2x Drivers, Security Officers and Mess Supervisor)
Secretarial Staff	1	1	0	
Handyman and Janitor	17	13	0	Grounds, Security, and Mess
Total	55	42	1	Current Establishment
Casual Employment (CE)	--	21	0	Temporary and Casual Employment.
BUC Employees	--	6	0	BUC Paid Employees
Total Employees	55	69	1	

- Two academic staff members were engaged as part-time lecturers, a new Security Supervisor was recruited, while three staff members retired due to medical and age-related reasons, and one staff member passed away.

Infrastructure/resources (upgraded facilities or new resources and equipment)

- DHERST allocated K500,000.00 to the Bulolo Campus for a male dormitory, now held in the PNGUoT main account and yet to be utilized.
- The Government approved the 40-bed male dormitory proposal, but Treasury funding is still pending for implementation.
- Bulolo Campus received 800 iron roofing sheets from MP Hon. Sam Basil Jr. for the proposed permanent graduation hall, which is yet to be built.
- ICT upgrades completed include three multimedia projectors in classrooms, new outdoor Wi-Fi access points (including the female dorm), a PNGUoT backup server, and a DataCo-enabled satellite backup link.
- The Morobe Provincial Lands Office has not yet submitted the inspection report for land portions 409, 410, and 411, despite inspections completed in 2024.

- The land-use agreement between Water PNG and PNGUoT for bore water extraction on portion 410 is still pending finalization following Bulolo Campus Management's comments on the draft MoA written by Water PNG.
- Nursery upgrades include completion of the emergency shower, with work ongoing on the germination shed extension and new nursery stand-out beds to boost nursery capacity to raise more seedlings.

Capacity building (staff training, professional development)

Staff Training:

Several staff participated in key professional development programs, including:

- SPSS (Statistical Software) training at PNGUoT (Academic staff).
- GEDSI training at PNGUoT (Acting Director).
- TLMU trainings for Academic, Technical, and Admin staff.
- Research and Publication training at Taraka Campus (Academic staff).
- UNDP-sponsored trainings in Proposal Writing and Financial Reporting / M&E were attended in Port Moresby by Mr. Maiguo.
- Australia Awards-funded PhD Proposal Writing training at Loloata Resort (two Academic staff).
- Training in seed preservation, germination, cryo-preservation, and viability testing at Mt. Annan Botanical Gardens, Sydney (Mr. Sosanika).

Professional Development:

- Mr. Tombo Warra, in his final PhD year at James Cook University, completed his pre-completion seminar in October and expects thesis examination within three months; he will resume teaching in Semester 2, 2026.
- Mr. Eko Maiguo is in his second year of PhD studies at PNGUoT, with completion expected in 2027.
- Mr. David Tobesa, Senior Technical Officer, is completing his Year 3 studies in the BFRM program, with completion expected in 2026.
- Ms. Priscilla Menin, part-time Technical Instructor, has submitted her MPhil thesis to PNGUoT for external examination.

- Mr. Nakikus Gwaso, Technical Officer, attended the EU-FCCB Master's Inception Course from 26 July to 27 August 2025 at the New Guinea Binatang Research Center.

Research and Innovation Highlights

Research projects undertaken:

- Mr. Eko Maiguo is conducting PhD research on the impacts of the naturalized *Samanea saman* in former gold dredging sites in the Bulolo Valley.
- A *Nothofagus* seed conservation project is underway in partnership with Kew Gardens (UK) and Australian seed banks.
- Seven Bulolo Campus academic staff supervised final-year research projects for School of Forestry students at Taraka Campus.
- A Balsa seed orchard was established as a Permanent Sampling Plot, with initial density recorded and monitoring planned over five years for comparison with lowland and island regions.
- Two agroforestry demonstration plots were established for student training and community extension: Coffee-Casuarina and Cacao-Eucalyptus.

Publications and Conferences:

- Two academic staff (Mr. Maiguo and Mr. Sosanika) presented papers at the PIURN 06 Conference at PNGUoT (1–3 July 2025): The second paper was also presented by Mr. Sosanika at the Seed Science Conference in Horsham, Victoria, Australia.
- Mr. Sosanika published an article in 'Samara', the Millennium Seed Bank Partnership's 25th Anniversary Edition (2025).
- Bulolo Campus held six internal research seminars in 2025, featuring presentations from academic staff, students, and Professor Maino, Dean of the Faculty of Natural Resources.

Grants

- K34,720.00 was secured from PNGUoT's Research and Conference Funds to support Mr. Maiguo's PhD studies.
- Mr. Sosanika's overseas conference travel was fully supported through collaborative grants from the SPARK Network, Australian Grains Genebank, Australian Heads of Botanical Gardens, Seed Science Conference hosts, and Kew Gardens.



Collaborations

An agreement was signed with Kew, Otari, PNGUoT Bulolo, Royal Botanic Garden Australia, and Tasmanian Botanical Gardens for the Asia Pacific Global Tree Seed Bank, with *Nothofagus* research in PNG set to start in 2026.

Partnerships and Community Engagement

- Collaborated with PNG Forest Products (PNGFP) Balsa Project on Balsa development in Bulolo Valley, conducting initial soil assessments with samples sent to NARI for analysis.

Community impact projects – outreach, awareness, community initiatives

- Mr. Maiguo secured K169,764.00 from UNDP for the Makini Integrated Development Agency to plant 300,000 *Litsea firma* trees in 15 villages of Upper Mape, Finschhafen (Sept 2025–Sept 2026), with Bulolo Campus as a project partner.
- Three academic staff supported tree planting and ecosystem restoration in flood-affected areas of Jiwaka Province with ADRA, raising 4,000 seedlings worth K12,000.00 at Bulolo Campus for community rehabilitation.
- Staff conducted *Nothofagus* seed collection and forest conservation awareness in Menyama District, Morobe Province.
- Bulolo Campus participated in Balsa plantation prospecting and trial proposal meetings with the Mare and Watut village communities in Morobe Province.

Challenges and way forward

Main challenges include:

- Funding and resource constraints: Limited funding restricts research activities, lab analyses, infrastructure upgrades, equipment purchases, and network improvements, leaving the campus heavily reliant on student fees to support training and operations.
- Staffing: Limited staff numbers slow down work, reduce supervision, and hinder research and infrastructure progress, while the shortage of personnel to support student welfare remains a major challenge.
- Limited Accommodation and Classroom Space: In 2026, the number of classes will increase by one, bringing the total to 5 classes (i.e., 4 BFRM and 1 BSCF classes).



Timber and Forestry Training College (TFTC) Bumbu Campus

Introduction

Timber and Forestry Training College (TFTC) in Papua New Guinea (PNG) played a crucial role in the development of sustainable forestry practices and training in the country.

The institution was once a chicken farm or poultry farm in the early 1970s; however, it was later transformed and converted into a training institution. It was then named “Timber Industry Training College (TITC)” and managed under the Forest Ministry.

The institution was established as a bilateral aid project between the Government of Papua New Guinea and the Government of New Zealand. It was formally opened in 1979 for its formal enrolment and training. TITC then offered Pre – Employment Technical Training Certificates (PETT) from then on until further changes of certification took effect. The policy shift resulted in many changes to the institution, in terms of management, operations, structure of governance, and others.

The focus of the Institution was training, upskilling, and mentoring young graduates to be absorbed into the timber industry, where many logging companies were directly employing students. Apart from the logging operations in the country, other organizations like the Department of Works and Supply (DOW), PNG Forest Products, Bougainville Copper mine, Hebou Construction, Golden Square, Pryde Furniture, Curtain Brothers, Lae Builders, to name a few, were recruiting TITC graduates for the Apprenticeship program.

Historically, TITC was a part of the forestry sector, and has been a significant industry in PNG, supporting both economic development and community livelihoods. However, challenges such as deforestation, unsustainable logging practices, and inadequate management of forest resources have prompted the need for comprehensive training programs.

The transition of the institution from what it was in the last 45 years or so, to the current state, resulted from policy directives, Reforming, Transforming and Unifying the Higher Education System in Papua New Guinea.

Brief overview of the school, including vision and mission.

In 1996, the college underwent amalgamation into the University of Technology, and the institution was renamed the “Timber and Forestry Training College (TFTC)”. TFTC in the last 45 years or so has produced thousands of skilled workforce for Papua New Guinea and the overseas labour market in public, private, NGO sectors in the technical skills workforce, academia, managerial levels, and other prospects that these graduates found to be successful.

Vision

To be a leading institution in the Forestry, Wood Processing and Manufacturing education and training, focusing on academic programs and industry driven training”.

Mission

To provide high quality academic programs in line with the PNG University of Technology vision 2025 -2029, and industry-driven training in forestry that equips students with the skills, knowledge, and practical experience necessary to meet the challenges of the forestry sector. We are committed to promoting sustainable forestry practices, enhancing environmental stewardship, and supporting the economic viability of the timber industry through collaboration with stakeholders and continuous improvement in educational offerings.”

Alignment with University Strategic Plan

TFTC Bumbu campus, as part of the University, was required to align its academic program with the University programs for consistency, standards, and quality of the program output.

The management and administration of the campus comply with and keep the University policy, process, and procedures. The report of the Principal/Director of the campus for the academic programs is through the office of the Head of School, School of Forestry, the management is through the Dean of Faculty, while financial reporting is through the office of the Deputy Vice Chancellor.

Update on benchmarking/accreditation

The campus is in negotiations with other institutions for the benchmarking of the current Diploma programs for future pathways through the School of Forestry and other institutions abroad, such as Bogu University in Indonesia, Canterbury University in New Zealand, and the institutions that may offer similar programs in the Wood Processing and Manufacturing

Academic Programs on offer (undergraduate, post-graduate, short courses)

TFTC/ Bumbu campus is currently offering a Diploma program and is in its second year. . It was approved by the academic board in 2023, followed by the first-ever Diploma program in 2024. Although the Diploma program was officially approved by the University, it had yet to be accredited by DHERST as a recognized program under the Department for the Scholarship of students.

The program was accepted by the DHERST review panel and will be tabled for approval by the Higher Technical Education Board in 2026 as an accredited program.

Brief of programs on offer, including new programs and/or changes

The current program offered is a Diploma in Wood Processing and Manufacturing. (DWPM) . The program is a two-year program. The program was an upgraded version of the Certificate.

Programs on Offer;

- Diploma in Wood Processing and Management

The campus anticipates offering a couple of programs in the near future;



- Bachelor's Degree
- Diploma in Building Construction and Management
- National Certificate for industry work force demand

Enrolment and graduation statistics

The enrollment for 2025 was:

- Year One (1) 43
- Withdraw 12
- Total 31 completed the 2025 academic year
- Year Two (2) 46
- Withdraw 7
- Total 39 completed the 2025 academic year

Graduation List: 39 students are expected to graduate in 2026

Staffing and infrastructure

Staff numbers (academic, admin, new staff, promotions, or training)

Sections	Position	Occupied	Va- cant
• Admin staff	7	6	1
• Academic staff	15	15	0
• Staff on Study	2		
• Accounts	4	3	1
• Technical Support	8	5	3
• Library	2	2	0
• Security Personnel	12	11	1
• Admin Support	12	10	2
• Total	62	54	8
• Part-time staff	3	3	

Infrastructure/resources (upgraded facilities or new resources and equipment)

- All buildings, including Administration, students' residences, workshops, and staff houses, needed immediate attention.
- There are no proper classrooms to accommodate the academic programs; whatever available spaces and resources are utilized while planning to secure funds to upgrade and construct classrooms to cater to the programs.
- Parameter fencing is an issue resulting frequent attacks from rascals that attack staff and students
- Bumbu River is another sleeping giant waiting to launch its attacks like any other year.
- Training Equipment and facilities are obsolete

Research and Innovation Highlights

- TFTC Bumbu campus has not engaged in research projects as yet, but would consider in the future.

Partnerships & Community engagement

The campus engages in several partnerships and community programs

- Industry Partnerships – key collaborations with the private sector/government/NGO
 - Ikana Holdings – Training partnership
 - Radas Limited, Rabaul
 - AES Timber, Rabaul
- Community impact projects – outreach, awareness, community initiatives

TFTC Bumbu campus has several community outreach programs that were initiated by communities and respective organizations, focusing on skills training in sustainable sawmill operations, chainsaw operation, and log scaling. These programs enhance the skills of people within the timber resource areas and create job opportunities after the training programs are completed

Challenges and way forward

Challenges

This year has been a very challenging year for us as an institution and campus, experiencing the following,

- law and order issues have been an ongoing
- Parameter fencing, settlement occupying the institution boundaries
- Attacks on staff and students by organized gangs that resulted in the
- Low enrolment
- Financial constraints
- Infrastructure


Way forward/Opportunities

The way forward for us as an institution is to take strategic steps

- Financial Management and Investment
- Continues Improvement on facilities
- Improve and expand the existing Semi – Commercial to sustain the campus
- Market Research and Industry Analysis
- Develop Strategic Partnership Plans
- Develop risk management plans
- Diversification of opportunities
- Talent Development and Corporate Responsibility



**Faculty of
Postgraduate Studies,
Research
&
Innovation**



Our mission is to enable high-volume, high-impact research by staff and postgraduate students at PNGUoT. The faculty is committed to advancing the humanities, built environment, science, engineering, and technology, while fostering solutions and innovations with practical relevance to Papua New Guinea. To ensure our research remains current and at the forefront of innovation, we actively promote interdisciplinary collaboration, industry partnerships, and international engagement.

In 2023, the Postgraduate School was renamed the Faculty of Postgraduate Studies, Research and Innovation, and aligned with the Strategic Plan 2025-2029 for academic excellence and for conducting state-of-the-art research that leads to innovation and product development. The faculty staff includes Acting Dean Professor Rajashekhar Rao, Ms. Pamela Dubaba, Senior Assistant Registrar, Ms. Valerie Bulungo, Administrative Officer, and Mr. Terence Kaupa, Assistant Administrative Officer. The Faculty of Postgraduate Studies, Research and Innovation offers about 65 postgraduate programs spanning Doctor of Philosophy, Master of Philosophy, and course-based Master's programs, and postgraduate diploma and certificate programs.

In 2025, the first cohort of the Master of Science in Applied Chemistry, the Master of Science in Climate Change and Renewable Energy, the Master of Applied Mathematics, the Master of Applied Economics, and the Master of Science in Accounting & Finance commenced. In addition, a high-level sub-committee—the Research, Innovation, and Development Team (RIDT)—was established in 2025 under the Postgraduate Studies, Research, and Innovation Committee to spearhead innovation efforts. The Students' Innovation Committee was also set up to oversee student-led innovations at PNGUoT under the Chairmanship of Deputy Vice Chancellor, Professor Garry Sali.

DIGITALIZATION OF STUDENT DATABASE

The faculty initiated a project to digitize the postgraduate student database in collaboration with ICTS and integrate it with registration and other student administrative processes. The 2020, 2022, and new 2024 program course handbooks have been successfully uploaded into the UNISIS system and mapped to their respective school codes and courses. Customization of mark-entry functionalities, following the processing of examination results, as well as transcript-printing functionalities, is currently under development.

POSTGRADUATE ADMISSIONS

The postgraduate student enrolment stood at 234 comprising 156 male students (67%) and 78 female students (33%). Among the 210 Master's-level postgraduate students, approximately 132 students (63%) have opted for course-based Master's programs, while the remaining 37% have opted for research-only programs (MPhil).

GRADUANDS DATA

A total of 53 students received various postgraduate degrees. Of them, 10 students (18.9%) earned postgraduate certifications in student-centered teaching, 26 students (49%) earned course-based degrees, and 14 students (26.4%) earned thesis-based Master's degrees. PhD degrees were awarded to three students.

GRADUATE ASSISTANTSHIP PROGRAM

Through the Graduate Assistance Program (GAP) scholarship, which waives tuition, housing, and other postgraduate expenses, the faculty's operations continued to support high-achieving students. To improve the university's academic reputation and dedication to quality, this scholarship program seeks to attract academically exceptional students to pursue higher degrees locally. Sixteen students received help via the GAP program in 2025; of them, 8 were continuing students from 2024, five were awarded a scholarship commencing from Semester 1, 2025, while three were awarded a GAP scholarship in Semester 2, 2025.

HELP SUPPORT FOR PG STUDIES

The Faculty of Postgraduate Studies, Research and Innovation facilitated the Higher Education Loan Program (HELP) offered by DHERST to support postgraduate students. This initiative contributes to the development of Papua New Guinea's higher and technical education sector, promoting economic progress, social growth, and nation-building. In 2025, a total of 49 postgraduate students accessed the HELP facility, of them, 34 were male students and 15 were female.

INTERNATIONALIZATION OF PG PROGRAMS

The Faculty actively engaged with overseas partner institutions and hosted a student under the Queen Elizabeth Commonwealth Scholarship (QECS). In 2025, one QECS scholar from Kenya, Mr Musyoki Mwangangi, enrolled. The Faculty actively engaged with overseas partner institutions and hosted a student under the Queen Elizabeth Commonwealth Scholarship (QECS). In 2025, one QECS scholar from Kenya, Mr Musyoki Mwangangi, enrolled in the Master of Engineering in Civil Engineering program in the School of Civil Engineering. A new QECS scholar, Mr Ali Mubaraq from Nigeria, has been accepted to commence his studies in 2026, also with the School of Civil Engineering.

WEEKLY SEMINARS

The weekly seminars were conducted by academic staff and senior research students to facilitate the exchange of ideas, research findings, and progress updates among postgraduate students, researchers, and faculty members. These seminars promote teamwork, strengthen research skills, and ensure that everyone remains informed about ongoing projects.

In 2025, a total of thirteen staff–student seminars were held. Dr. Mirzi Betasolo, Head of the School of Civil Engineering, efficiently coordinates the weekly seminar series.

DEAN'S FORUMS

Two Dean's forums were held (25th April and 19th September) with the objectives of providing postgraduate students and supervisors with a platform for open dialogue, feedback, and reflection, fostering improvement in teaching, supervision, and research culture while ensuring awareness of faculty policies and consistent academic practices.

RESEARCH AND CONFERENCE FUNDING

The Faculty, through the Postgraduate Studies Research and Innovation Committee, approved K 756,686.91 for staff and student research funding. Besides, a financing of K 55,569.57 was approved for academic staff to attend national and international conferences. The total spending approvals on research funding and conference attendance were K812,256.48 as outlined in Table

THE INTERDISCIPLINARY JOURNAL OF PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY

In 2025, The Interdisciplinary Journal of Papua New Guinea University of Technology published the second volume with two issues. The journal successfully obtained CrossRef membership for digital object identifiers. All articles bear DOI numbers now so that online tracking is seamless. Issue 1 of Volume 2 featured 11 peer-reviewed research articles. The second issue was a special issue to commemorate 50 years of independence of Papua New Guinea and contained mostly invited, 19 peer-reviewed articles.

ANNUAL STUDENT SEMINAR

The annual student research seminar was held on 1–2 October, featuring 34 postgraduate presenters, including six PhD candidates, who shared their research with the University community and industry leaders. Sessions were chaired by research leaders from ACIAR and Lutheran University, senior PNGUoT professors, and Trukai Industries Ltd. Notably, the Best Presenter Awards were introduced in 2025, with recipients selected according to defined evaluation criteria. Mr. Sinafa Robby (PhD, Agriculture) was awarded Best Presenter for his study on *Leptospirosis* spp. in cattle in Morobe Province. Second place went to Mr. Brian Nokondopa (MPhil, Mining Engineering) for his work on reducing cyanide consumption using CN–Gly synergistic leaching, and third place to Ms. Lisapho Wawah (MSc, Agriculture) for her assessment of ploidy and drought tolerance in taro varieties and their progenies.

Table 1. Research and conference funding approved in 2025

Meeting Nos.	# of conference awards	Conference funding (PGK)	# of research funding awards	Research funding (PGK)	Total of conferences and research funding (PGK)
PSR&IC No. 19	-	-	6	235,416.32	235,416.32
PSR&IC No. 20	1	8,945.00	12	177,450.00	186,395.00
PSR&IC No. 21	-	-	9	159,259.89	159,259.89
PSR&IC No. 22	-	-	3	38,601.27	38,601.27
PSR&IC No. 23	4*	46,624.57*	8	145,959.43	192,584.00
Total	5	55,569.57	38	756,686.91	812,256.48

* A PhD student was supported with K8,000 to present a paper entitled “A holistic Approach to Address Food System Challenges through Shiology: Perspectives from Papua New Guinea and the Pacific” to present a paper at China

WORKSHOP ON GRANT PROPOSAL WRITING

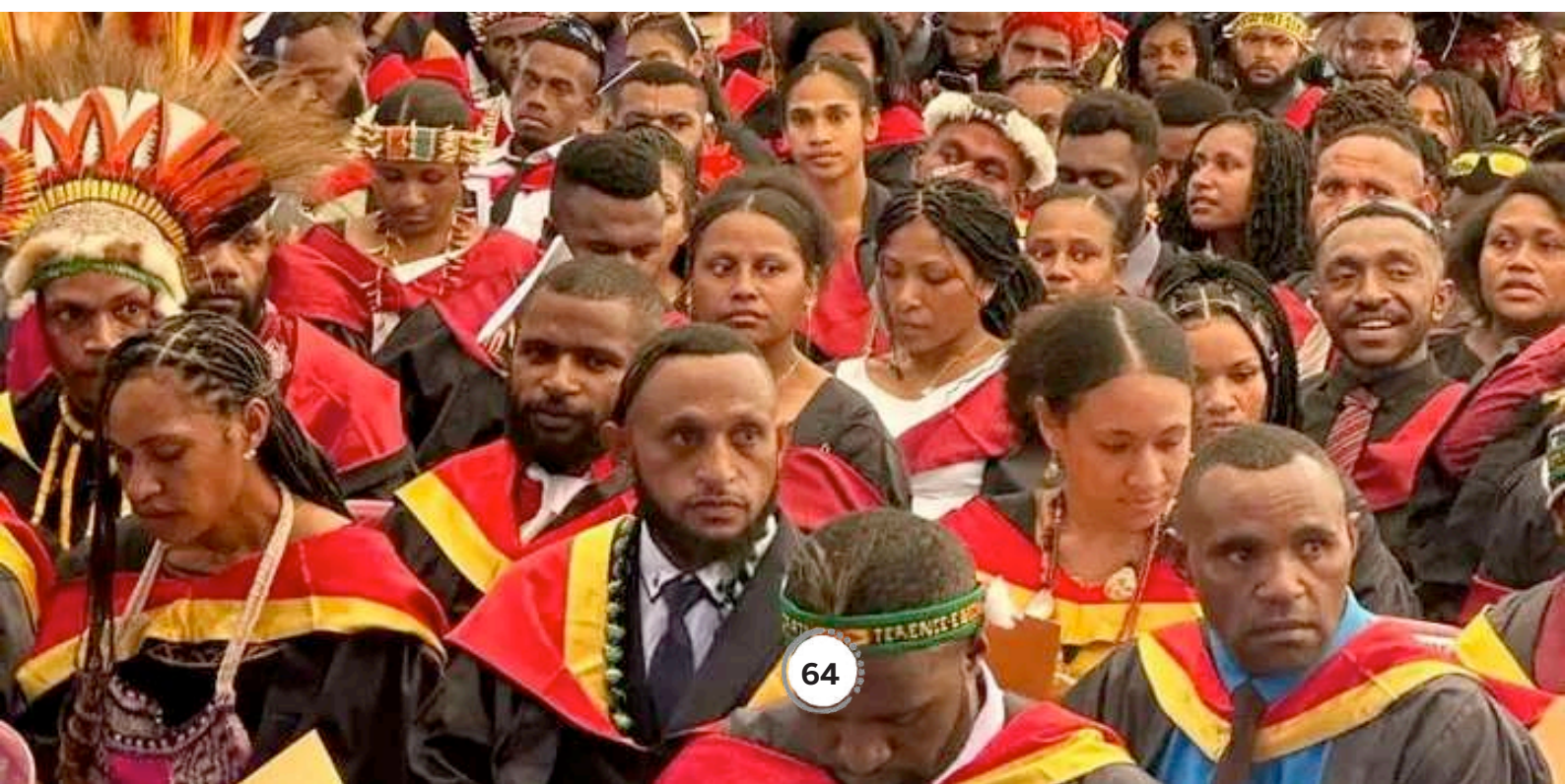
The Faculty of Postgraduate Studies, Research and Innovation, in collaboration with the Teaching and Learning Methods Unit, hosted a five-day workshop entitled “Competitive Research Proposal Writing for National and International Grants” from 13 to 17 October 2025. About 26 academic staff from PNGUoT participated as trainees. In contrast, senior faculty members, staff from the PNG Science and Technology Secretariat, and the National Department of Planning and Monitoring served as resource persons and trainers.

6th PIURN (PACIFIC ISLAND UNIVERSITIES REGIONAL NETWORK) CONFERENCE

The PIURN conference, themed “Harnessing technologies for the safe and sustainable development of the Pacific,” was hosted by PNGUoT from 1-3 July 2025. This served as a platform for exchanging research ideas and new information among researchers and students. PIURN sponsored the participation of Dr Cossy Yosi, Associate Professor and Head of School of Forestry, and Mr Hayden Wagia, a PhD student. Mr Wagia is investigating the Functioning and Dynamics of New Guinea Rainforest Trees under Extreme Climatic Conditions. They are scheduled to attend the Summer Institute at the University of the South Pacific in Fiji from 17–22 November.

STAFF/ STUDENT PUBLICATIONS

The academic staff and postgraduate students published their research findings in various formats, including journal articles in reputable professional journals, conference and seminar papers, books, and book chapters. In 2024, as reported in 2025, the total scientific output included more than 121 journal articles, 12 books, 24 book chapters, 81 conference/seminar papers, and one granted patent.



Faculty of Sciences



School of Applied Physics

Offering programs aimed at setting a solid foundation in scientific principles and applications



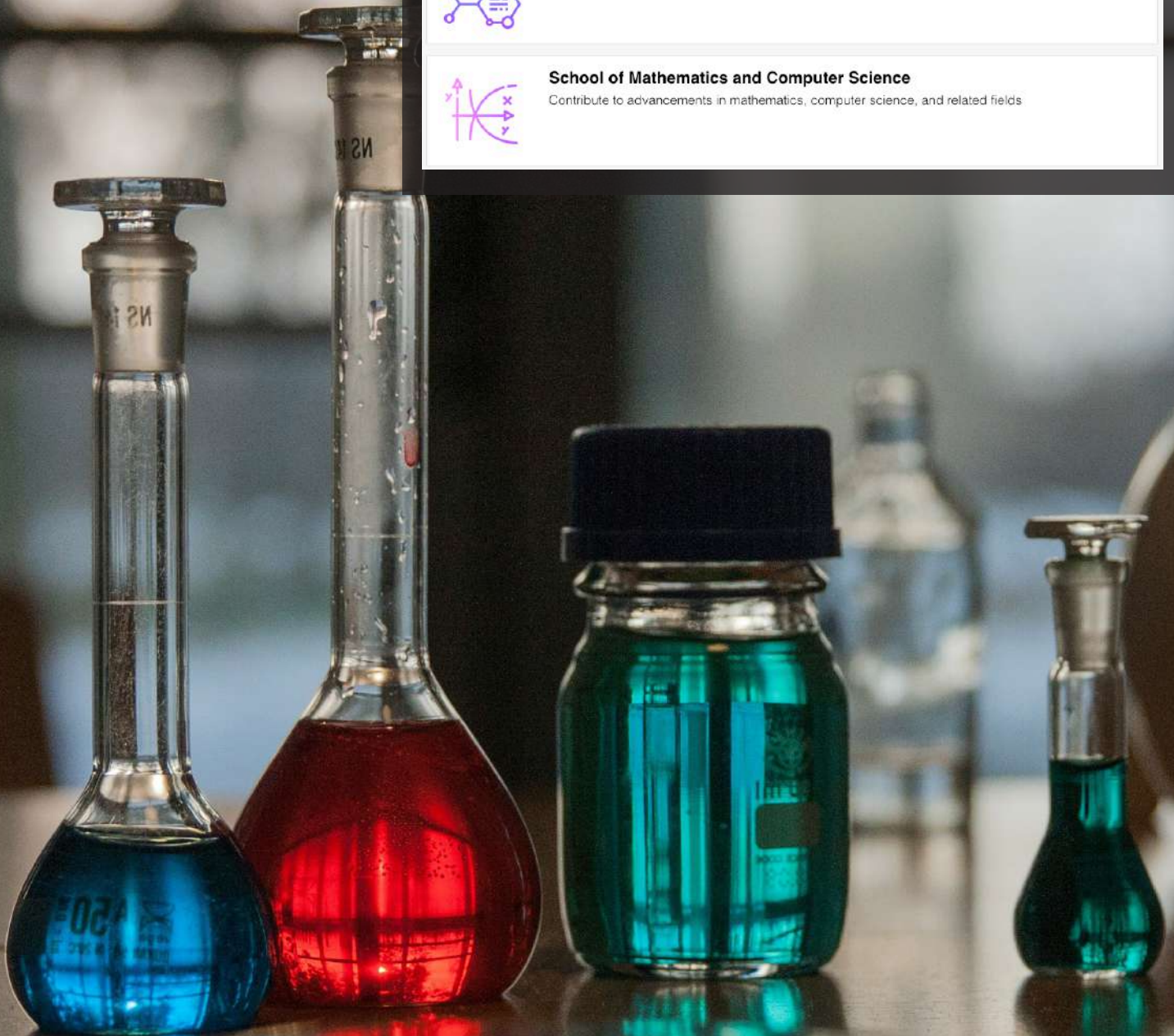
School of Applied Sciences

Tackle complex challenges in chemistry, biology, and environmental science.



School of Mathematics and Computer Science

Contribute to advancements in mathematics, computer science, and related fields



School of Applied Physics

Introduction.

This is a brief report of the major activities of the School of Applied Physics and milestones that were achieved in the 2025 Academic Year.

Staffing Level

The School is privileged to have sufficient faculty, both on campus and on-line, and support staff to successfully complete the 2025 Academic Year. The cooperation among the staff was excellent in 2025 as well as in previous years.

Postgraduate Courses

The School of Applied Physics in Semester 2, 2025, commenced the MSc in Renewable Energy Access and Climate Change. This brings the number of Postgraduate programs to five, including the research-based Doctor of Philosophy (PhD) offered by the School.

In 2025, two (2) staff members are progressing well in their doctoral studies (PhD). One student in MPhil, 3 students in MTech, two students in MSc Applied Physics, and seven students in Renewable Energy and Climate Change. One Staff member has completed all the formalities for the final submission of his PhD thesis, and another staff member will submit his PhD thesis next year, 2026.

Final year undergraduate students 2025.

A total of 38 students (32 males and 6 females) in the undergraduate program of Applied Physics with Electronics and Instrumentation, and 16 students (5 males and 11 females) graduated with a Bachelor of Engineering in Biomedical Engineering in April 2026.

AQAT File

All full-time academic staff have submitted their AQAT files in Semester 1, 2025, with an excellent success rate, and we look forward to maintaining the 100% success rate.

Accreditation of BSAP courses:

The School has initiated the process of benchmarking in 2023; however, the progress is low due to non-availability of an Accreditation Body to assist us with the process. However, Macquarie University in Sydney had agreed to do benchmarking for the BSAP program, and the Institute of Physics Australia (AIP) has indicated to assist with Accreditation. It is expected that by the end of 2026, we should complete this benchmarking program.

Research Output 2025

The number of papers published this year, 2025, is reasonable, and we are doing well in this area of academia.

Staff Training and Promotion.

In 2025, one academic staff member promoted as Professor, three technical staff members were promoted to Technical Officer II, and our Senior Secretary was promoted to Senior Secretary II. One of our Senior Professors was appointed as the Dean of the Faculty of Sciences of the university, which is a milestone for the school and the faculty.

National Radiological Laboratory.

Construction of the national radiological laboratory commenced in July 2023 and took over 8 months to complete. The laboratory was formally opened on 30 July 2025. The photos show the dignitaries and the building's west wing who officiate at the opening ceremony with the plaque.



Dignitaries at the unveiling of the plaque.

Installation of Solar Panels on the rooftop of the AP building to generate electricity using the solar rays.

This project has taken longer than expected and gone beyond the scheduled time frame, which was the end of 2023, and is now into 2025. The first stage of the project is completed, and we are in the second stage, which is the procurement and purchase of solar panels. The school building will be connected to a solar-powered energy grid that will help alleviate the never-ending power outages in Lae city and Unitech. This project is funded by the VC office. It is expected to expand to other academic departments upon the success of this first installation on the Applied Physics building rooftop. The photo below shows the frame on the rooftop ready for solar panels to be mounted. Currently, this project is on hold, awaiting further advice from the VC's Office.

Installation of Earthquake monitoring System at the Department.

The Port Moresby Geophysical Observatory (PMGO) Branch of the Geohazards Management Division (GMD), Department of Mineral Policy and Geohazards Management (DMPGM), and Rabaul Volcano observatory office, in collaboration with Geoscience Australia and the School of Applied Physics have successfully installed a seismic monitoring station within the premises to monitor earthquakes in and around the country. It can register earthquakes in neighboring nations as well, depending on their magnitude. The seismic station is being upgraded to host the broadband data network with the signing of the MoU in 2025. It is working very well and is being monitored online. The images below show the bunker and the monitoring station being upgraded to a 4G network by GeoScience Australia.



Earthquake monitoring system in the school



Mr Raymond Yamai, Director, Geohazard Manager Division, and Dr Kolkoma HoS Applied Physics.

A portrait was presented to the School of Applied Physics and Geohazard Management Port Moresby, by Geosciences Australia in recognition of Community Service to the people of Lae and PNG. The portrait is kept at the School of Applied Physics.

Major Achievements of the 2025 Academic Year.

- History in the making for the School of Applied Physics with the first female PhD in Applied Physics in PNG.
- An Academic Staff member was promoted to the esteemed position of Professor.
- One academic staff member was promoted as the first Dean of the Faculty of Sciences of the university.
- Review of PG Courses and rename to MSc in Applied Physics with Electronics and Instrumentation.
- Introduction of a new PG Course in Renewable Energy Access and Climate Change
- Completion of the National Radiological Laboratory and upgrade of the car park.
- Five Staff members got promotions in 2025.
- As an initiative of the Sustainable Energy Research Institute (SERI), the School of Applied Physics launched a Postgraduate Program on Renewable Energy Access and Climate Change (MREA) during Semester 2, 2025.
- The school procured a new 25-seater bus for its use.
- One of our postgraduate students received the coveted Fulbright Scholarship and cleared the international competitive tests – GRE and TOEFL - and is now pursuing his master's degree in aerospace engineering at the University of Missouri, USA.

Student strength of the department

- Currently, the school has 205 students with the following breakdown.

Degree	Number of students
PhDs	3 (All faculty members)
MPhils	2
MSc	2
MTech	3
MREA	7
BSAP	134
BEBE	53
Total	205 (Including three faculty doing PhD)





School of Applied Sciences

Introduction

The School of Applied Sciences offers two distinct degree programs: the Bachelor of Science in Food Technology and the Bachelor of Science in Applied Chemistry. The school is committed to the training of students at both undergraduate and postgraduate levels of the highest quality. Our vision is "To become a school that produces intellectual manpower for Papua New Guinea's development and sustenance". And a mission is "To focus on high-class teaching and quality research, continuously striving to produce future leaders, rich in intelligence and innovations in the field of Applied Chemistry and Food Technology, and simultaneously concentrate on strengthening and enlightening the community."

In aligning with the university's strategic plan 2025-2029, benchmarking of our 2 programs has been discussed with the University of New South Wales (UNSW), and formal discussions have been established, especially with the UNSW School of Chemical Engineering for the benchmarking of the Food Technology program. Necessary documents and processes have been , and we are working towards a review of documents and a visit in March-April 2026. We are also working towards getting the BSc Applied Chemistry program benchmarked with the School of Chemistry.

The curriculum and courses handbook for our programs have been reviewed and updated.

Industry Advisory Committees (IACs) for the 2 programs have been reviewed and accepted, and new members have been contacted and confirmed informally. All formal processes will be completed, and the first meeting is proposed for March next year to prepare for the UNSW external assessors' visit for benchmarking.

Academic Programs on offer (undergraduate (UG), post-graduate (PG), short courses)

Undergraduate Programs – BSc Food Technology & BSc Applied Chemistry

The annual intake quotas are fixed at 28 for each of the 2 programs: 20 school leavers, 6 non-school leavers, and 2 for overseas students. As usual, a few students failed at the end of both semesters; some got readmitted in semester 2, and a few withdrew from studies for various reasons, thus influencing the overall statistics for each semester.

Table.0 Enrolment and graduation statistics 2025

	SEMESTER 1	SEMESTER 2	GRADUATING
APPLIED CHEMISTRY			
BACH 1	26	25	
BACH 2	20	17	
BACH 3	21	22	
BACH 4	22	21	21 [13 x Female & 8 x Male]
FOOD TECHNOLOGY			
BFTE 1	27	27	
BFTE 2	21	19	
BFTE 3	23	24	
BFTE 4	19	20	17 [12 x Male & 5 x Female]
Total	179	175	38 Graduating students

Postgraduate Programs

In addition to the Master of Philosophy and Doctor of Philosophy degrees offered in both programs, this year the Master of Science (coursework) in Applied Chemistry was introduced, and the MSc coursework for Food Technology is being prepared.

Degree Program	Food Technology	Applied Chemistry	Comments
Master of Science	0	2	1 is a technical staff
Master of Philosophy	1	2	1 is a technical staff
Doctor of Philosophy	1	2	All 3 are lecturers

Table 2.0 Postgraduate programs currently offered and the number of students in each program

Short courses

Food Safety Short Course - conducted annually during the semester breaks, there are 3 levels to the course, attracting a lot of participants from the food industries, hospitality industries, and food providers to mines and other organizations. This year, all 3 levels were conducted with a total of 43 participants. There were also requests from 3 different organizations for our staff to conduct this course on-site for them. A short course on "Properties and Analysis of Petroleum and its Products" was conducted with 7 participants coming from both the chemical/mining industries and related organisations.

Staffing and infrastructure

This is a brief on staffing and infrastructure this year.

Staffing

Advertisements for 4 academic positions (3 in Food Technology) and 1 in Applied Chemistry, and 2 technical staff positions have been closed in November this year, and interviews and onboarding processes will be completed early next year. In addition, 1 Food Technology professor was hired in 2023, but he has yet to join due to visa issues.

The school has a comprehensive training plan for all staff, and they are encouraged to apply for suitable training as per their specific needs. This year, the executive secretary completed her Diploma program, and Dr. Jayson Wau graduated with his PhD from James Cook University, Australia.

Infrastructure/resources (upgraded facilities or new resources and equipment)

Equipment for Nanotechnology research Laboratory and other 2 instruments

The Vice Chancellor committed and approved K265,319.00 for the procurement of laboratory equipment for research in Nano Technology, especially for postgraduate and staff research in June this year. The procurement is in progress.

The university also approved the procurement of a muffle furnace and a Kjeldahl unit for our undergraduate Lab in July, the procurement is in progress.

	Food Technology	Applied Chemistry	Comments
Professor	0	1	
Associate Professor	0	2	
Senior Lecturers	3	1	
Lecturers	2	3	
Part-time lecturers	3	3	
Tutors	1	3	
Technical staff	4	5	
Lab Manager			1 - Oversees all technical functions/staff
Janitors			2
Admin			1 Executive Secretary & 1 Admin Officer

Project – Improvised Container Office

Funding was approved by SEMT in 2023 to expand office space for staff. The appointed contractor failed to uphold contractual obligations and was liquidated in November 2025. Estates and Services are now arranging completion, with urgency communicated by the school. Target completion is March 2026. This project remains vital to accommodate the expansion of the postgraduate program, and future staffing needs.

Project – Complete Renovation & Refit of the Food Technology Pilot Plant

Funded by the PNG National Fisheries Authority (NFA) with a pledge of K2.8 million. Building assessments, scope of work, and procurement submissions have been completed, and an independent contractor is being appointed for full renovation and installation of advanced food processing technologies. The renovated facility will significantly enhance food science research, postgraduate training, and industry collaboration. An equipment procurement mission was conducted in China in July by a joint delegation from the NFA and the School with the primary objective of identifying, assessing, and initiating negotiations with suppliers of food processing and manufacturing equipment.

National Food Testing & Monitoring Laboratory (NFTM)

The NFTM Laboratory still maintains its accreditation status, awarded in 2024. It is currently working to expand the scope of analyses covered under accreditation to include other analyses in food and environmental matrices for microbiology and chemistry. It currently has 4 staff members and continues to provide full support to both undergraduate and postgraduate students at the school by allowing the use of its equipment and other resources.

matrices for microbiology and chemistry. It currently has 4 staff members and continues to provide full support to both undergraduate and postgraduate students at the school by allowing the use of its equipment and other resources.

Research grants and collaborations

This is a brief highlight of research grants and collaborations this year.

Do note that all research activities for undergraduate, postgraduate, and staff publications this year, as well as conferences attended, will all be covered in the 2025 Research Report.

Research grant from PNG Science & Technology Secretariat

A Research grant agreement worth K300,000.00 was signed between the PNGUoT – Applied Sciences and the PNG Science and Technology Secretariat in early September, and the initial grant money was transferred to the university in December. The grant is to support the research work in prospecting for biomolecules that may have potential applications in cosmetics, agriculture, medicine, and other relevant uses.

Collaborations

The Head of School was funded by the UNSW Engineering Diversity Visiting Academic funding in February to visit UNSW to discuss with UNSW Food Science Academics on the review of the four-year program in Food Technology for benchmarking, discussing the potential of 2+2 arrangements with UNSW Food Science when IFT, we, also recognizes the Food Technology program at PNGUoT. Moreover, to have individual consultations on research collaboration with UNSW Food Science and Chemical Engineering.

Partnerships & Community engagement

This is a brief on industry partnership, national contribution, and community impact projects.

Contribution to national committees & boards

Members of staff serve on the following national committees and boards: National Food Legislation Board, both Chemical and Biological Standards Committees of NISIT, Commodity Boards like the Coffee Standards Review Committee, Cocoa Board, and Agriculture & Fisheries in Aviation Board (AFIA).

Industry partnership with NFA

This rich mutual-benefit partnership started with the initial MOU in 2014, which was further revised and strengthened in 2022. This partnership has seen a lot of investment from NFA, to name a few; the funding and establishment of NFTMC with sophisticated equipment, staffing and vehicle, renovation of the school building in 2017, assistance with procurement of chemicals, reagents and labware for the undergraduate program in 2023, ongoing support with industrial training of our students and now the total revamping and re-fit of the food processing pilot plant.

Community impact projects – outreach, awareness, community initiatives

In line with the PNGUoT's vision to translate science and technology to impact society.

Establishment of Markham Cocoa Down Stream Processing Plant

Project to establish a 10 ton per day Cocoa downstream processing plant at Waterrise Economic Centre in Umi -Atzera LLG, Markham District, worth K40 million. Officially launched on the 16th of May 2025 with an initial funding approval of K5m to start in 2026. It will cover areas of cocoa fermentary, solar drying system, processing plant, warehouse, water and waste treatment plants, aimed at producing cocoa butter and cocoa powder for exports and chocolate and drinks for local markets. Mr. Reilly Nigo (staff member) will lead a team of experts on this project.

Morobe Youth Empowerment Organization

Training provided by interested professionals aimed at assisting youths, women, and underprivileged people of both urban and rural settings in Morobe Province in areas of health, business development, SME setups, agriculture, downstream processing, mindset studies, business innovation, practical business ideas, and connections to financial institutions through financial literacy programs. Mr. Reilly Nigo (staff member) is one of the key facilitators.

Challenges and way forward

These are the immediate challenges:

- Infrastructure – the school building is an old concrete building, making it difficult to knock down things to create space without disturbing the integrity of the structure. We need to extend our building or have a new one. We are very short on Laboratory space for Postgraduate and staff research, as well as office spaces for staff members.
- Equipment & Instruments – for practical and lab-based programs, we are seriously short on equipment and instruments for both UG, PG, and staff research. We have recruited highly qualified and skilled staff who lack the necessary equipment to teach and conduct high-quality research. We are expanding our PG programs, but need specialized equipment and instruments to keep up with the evolving methodologies and techniques.
- Lab safety and waste disposal – our labs do not have the basic lab safety equipment. We also need to dispose of chemical wastes piling up over the years. All the avenues we have considered are very costly. University's OHS officers were consulted for assistance.
- Classrooms & student study spaces – we have only 2 small-sized classrooms, which are inadequate for teaching, learning, and self-study. It is a huge problem every semester.
- Staff - As we recruit staff from abroad in specialized areas in both chemistry and food technology, we also need enough national staff for localization, succession, and capacity building for the continuity of the programs.
- Annual Budget – is not enough to support the requirements of the two-degree programs, which are lab and practical-based. The cost of consumables, chemicals, solvents, and reagents has skyrocketed in recent years.

Way forward

- Identify, forge, and strengthen mutually beneficial partnerships with industries and government agencies within the country. The IAC can also be involved in progressing this initiative. Connect and collaborate with alumni working in enterprises and organizations.
- Collaborative research with- and donor-funded research collaborations with international partners and organizations, which will indirectly contribute to capacity building in terms of training of our staff members, as well as acquiring instruments and equipment.
- Consultation activities, short courses relevant to industry or societal needs.
- Create mini research/innovation hubs under relevant selected specializations within the school, which will foster research, generate income, and provide services for the industries and relevant stakeholders.

School of Mathematics and Computer Science

Introduction

The School of Mathematics and Computer Science (MCS) at Papua New Guinea University of Technology (PNGUoT) is committed to delivering high-quality education and research in mathematics and computing. The school's mission is:

"To produce quality research and graduates in Computer Science and to give suitable Service Courses in Mathematics and Computing to all other Schools at the University. The aim is to produce graduates in Computer Science of a high standard, comparable with similar graduates from other Universities in the Pacific Region, who can provide development, critical evaluation, and application in their field for Papua New Guinea and the Pacific."

The school has a rich history, dating back to 1967, when it was part of the Faculty of General Studies in Port Moresby. It evolved through several stages—from the Department of Mathematics, to Mathematics and Statistics in 1987, and finally to Mathematics and Computer Science in 1992—reflecting the growing emphasis on applied mathematics and computer science. Significant milestones include the establishment of the Mathematics Learning Project in 1975, later evolving into the Mathematics Education Center, and the launch of the Computer Science program in 1993. The school aligns closely with PNGUoT's 2025–2029 Strategic Plan, which emphasizes four pillars:

1. Academic Excellence
2. Research, Development & Innovation
3. Strategic Partnership
4. Operational Excellence

Update on Benchmarking/Accreditation:

The School of Mathematics and Computer Science has initiated benchmarking of its undergraduate Computer Science program with the University of Newcastle, Australia, whose program is accredited by the Australian Computer Society (ACS). An MOU for this collaboration has been received and is awaiting approval from PNGUoT's Senior Executive Management Team (SEMT). The Mathematics program and postgraduate programs are new and will undergo similar benchmarking after the first cohort graduates (2026).

Through these initiatives, the School of Mathematics and Computer Science contributes to PNGUoT's vision of being "a world-class University positively impacting society" and its mission of producing graduates equipped with cutting-edge knowledge, research skills, and the ability to apply science and technology innovatively.

Academic Programs on Offer

The School of Mathematics and Computer Science (MCS) offers a range of undergraduate, postgraduate, and short course programs designed to meet both academic and industry needs.

Undergraduate Programs

The school offers three four-year, course-based undergraduate programs:

1. Bachelor of Science in Computer Science (BSCS)
2. Bachelor of Science in Applied Mathematics (BSc Applied Mathematics)
3. Online Bachelor of Science in Applied Mathematics (OSAM)

Enrolment and Graduation Highlights (Undergraduate):

- Annual intake for BSCS and BSc Applied Mathematics is ~30 students; OSAM currently accommodates 50 students.
- The first cohort of BSc Applied Mathematics will graduate in 2026.

Postgraduate Programs

- The school offers both research-based and course-based postgraduate programs:

Research-Based Programs:

- MPhil in Mathematics & MPhil in Computer Science
- PhD in Mathematics & PhD in Computer Science

Course-Based Programs:

- Master of Science in Applied Mathematics (MSc)

Short Courses

- The school actively delivers short courses for industry and government organizations, as well as other universities:
- Computer Science staff conduct training on software, IT, and programming for organizations such as Air New Guinea and the Traffic Office in Lae.
- Mathematics staff provide training on MATLAB, Jabref, and other mathematical software for institutions, including the Bank of Papua New Guinea.
- Customized short courses and project-based training are available upon request to meet specific institutional or industry needs.

Staffing and Infrastructure

Academic Staff

- The School of Mathematics and Computer Science currently comprises a diverse and qualified team across its two sections: Applied Mathematics and Computer Science.

Applied Mathematics Section:

- **Professor:** Hasan Gumral
- **Senior Lecturers:** Chris Wilkins, Mohsen Aghaei-boorkheili, Mansooreh Kazemilari
- **Lecturers:** Samuel Dunstan, John Lanta, Boaz Andrews, Raymond Kuna, Doris Benig, Cyril Sarsoruo

Computer Science Section:

- **Associate Professor:** Arun Kumar Singh
- **Senior Lecturer:** Benson Mirou
- **Lecturers:** Rajendran Bhojan, Lenz Nerit, Yaling Tapo, Peter Helebi, Nicholas Puy

Head of School: Mohsen Aghaei-boorkheili

Deputy Head: Boaz Andrews

Staff Development and Promotions

- PhD Students: 6 Students
- MPhil Students: 4 Students

- MSc Students: 9 Students
- Part-time staff: 9 Part-Timers

Technical and Administrative Staff

- **Senior Technical Instructor:** Sankwi Abuzo
- **Technical Officers:** Abel Sillas; Assistant Technical Officer: John Paigala
- **Administration Team:** Administrative Officer Sine Banit, Admin Assistant II Bumae Zate, Secretary Lorraine Senginawa, Janitor Rebeca Koen

Infrastructure and Facilities

- The school has six classrooms, one computer lab, one laboratory, one seminar room, a server room, a printing room, and a staff tea room. It has undergone accessibility and refurbishment upgrades, including a new lift and repainting in 2022.

Research and Innovation Highlights

- In 2025, the School of Mathematics and Computer Science demonstrated a strong commitment to research and innovation, with academic staff contributing 16 journal publications, 8 conference presentations, and 3 book chapters across mathematics, computer science, and related interdisciplinary fields.

Partnership and Community Engagement

- In 2025, the School of Mathematics and Computer Science strengthened partnerships with universities, industry, and communities to advance digital transformation, student learning, and staff development. Key collaborations included UNSW/Quickheal, NAIST and Osaka University (Japan), and the University of Newcastle for curriculum, research, and training. Industry engagement involved DataCo, Oracle, Huawei, Cisco/ITU, and the Bank of PNG, focusing on digital skills, professional training, and student placements. Community outreach included student field trips, the LIMS project with PNG Analytica, and contributions to a NICTA documentary. The year also marked the first BSAM cohort graduation—a significant milestone for the school.

Challenges and Way Forward

Challenges

1. Staffing Shortages and Teaching Load
2. Limited Postgraduate Pathways
3. Generational Gap in Academic Staffing
4. Infrastructure Constraints
5. Accreditation and Institutional Support
6. Balancing Growth with Quality Assurance

Way Forward

1. Develop and Launch Postgraduate Coursework Programs
2. Strengthen Academic Career Pathways
3. Succession Planning and Talent Identification
4. Expand Infrastructure Capacity
5. Accelerate Accreditation Support
6. Deepen Industry and Community Linkages
7. Enhance Research and Innovation Culture



University Research Centres

Spanning across all academic departments, our Research Centres (7 of them) support diverse collaboration and active research projects.





Appropriate Technology & Community Development Institute (ATCDI)

INTRODUCTION

The Appropriate Technology & Community Development Institute (ATCDI) presents this 2025 Annual Report, providing a consolidated account of the Institute's operations, achievements, external partnerships, revenue-generating activities, and institutional constraints over the period 2020–2025, with emphasis on the 2025 operational year. Despite significant resource constraints, ATCDI has continued to strengthen PNGUoT's visibility nationwide as a leading community-based engineering service provider.

OPERATIONAL HIGHLIGHTS (2020–2025)

Over the last five years, ATCDI has expanded its national footprint in delivering practical engineering solutions to rural communities. With a multi-disciplinary mandate covering Water & Sanitation (WaSH), Appropriate Technology, Renewable Energy, and Food & Downstream Processing (FDSP), ATCDI has become one of the University's strongest arms for community engagement and outreach.

Water Supply & Sanitation (WaSH) Achievements

ATCDI's WaSH program delivers some of the highest-impact interventions for rural and remote communities. Despite limited manpower, all 2025 projects were executed efficiently and within demanding field conditions.

Major Water Supply Projects Delivered (2020–2025)

- 2025 – Wampit Bore Water Supply – Morobe Province
- 2025 – Gabensis Bore Water Supply – Morobe Province
- 2025 – Bogia Bore Water Supply – Madang Province
- 2025 – Salamaua Gravity-Fed Water Supply System (GFS) – Morobe Province

- 2023 – Munum Bore Water Supply – Morobe Province
- 2022 – Kapari Bore Water Supply – Central Province
- Pending Project; 5-Mile Bore Water Supply (Morobe) – 40% completed; work halted due to locals damaging the bored water source, and the site requires a new borewell.
- Feasibility & Technical Assessment Projects Completed
- Across PNG, ATCDI completed technical feasibility assessments for:
 - Dei District – Western Highlands Province- secured K1 million and the project on progress
 - Kikori Riverine Communities through ExxonMobil PNG (Gulf Province)
 - Tewae-Siassi District – Wasu and Siassi Stations
 - Kendrian Station – West New Britain
 - Karavi & Raim Communities– Kokopo and Gazelle Districts, ENBP
 - Sumkar District – Madang Province
 - Bogia District – Madang Province
 - Bundaira CS Institute – Kainantu, Eastern Highlands
 - Markham District – Morobe Province
 - Huon Gulf District- Morobe Province

These assessments have strengthened Unitech's presence at the district, provincial, and corporate levels.

Appropriate Technology & Community Development Technology Innovations Developed (2020–2025)

- Low-cost charcoal stoves and charcoal making and processes
- Village-level solar dryers
- SME-scale agro-processing machines
- Brick mould -handheld and operated community devices for rural livelihoods
- Ram Pumps -locally-fabricated appropriate technology prototypes
- Installation of the biogas pilot plant at the ATCDI workshop is currently in use.

These innovations advance PNGUoT's mission of practical, low-cost, community-driven technologies.

Renewable Energy Initiatives

ATCDI continued its support for rural energy access through:

- Micro-hydro resource assessments
- Solar pumping systems incorporated into WaSH projects
- Community solar lighting demonstration projects
- Energy advisory services for partner districts

The integration of renewable energy solutions has enhanced the sustainability of rural infrastructures.

Food & Downstream Processing (FDSP) Impact

FDSP continues to be one of ATCDI's strongest community capacity-building arms.

Key Activities (2020–2025)

- Trainings on Virgin Coconut Oil (VCO), fruit jam, cordial processing, and soap production
- SME empowerment programs for rural women and youth
- Engagement of OJT and TVET students for hands-on community work
- District-level outreach programs benefiting community groups and churches

FDSP strengthens community resilience and aligns with national SME development goals.

EXTERNAL FUNDING, PARTNERSHIPS & REVENUE GENERATION

ATCDI has mobilised significant project funding from:

- District Development Authorities (DDAs)
- Provincial Governments
- Corporate Partners (e.g., ExxonMobil PNG)

- Corporate Partners (e.g., ExxonMobil PNG)
- Church Institutions
- Communities and local enterprises
- Donor-linked engagements with Chancellor's Office

These partnerships have increased ATCDI's annual project revenue and positioned the University as a frontline service provider in applied engineering and appropriate technology.

DNPM-FUNDED K1 MILLION PROJECT – ADDITIONAL COMMUNITY IMPACT PROJECTS

ATCDI acknowledges the leadership of the Chancellor, Mr. Sam Koim, whose facilitation secured K1 million from DNPM for community infrastructure assessments in Dei District, WHP.

Project Progress (as at 14 November 2025)

- Procurement of materials is underway through PNGUoT's system.
- Contractor mobilisation is expected imminently, enabling deployment during December 2025 – January 2026.
- Initial feasibility scoping (03–10 October 2025) has been completed.
- Mobilisation plans, logistics, and technical schedules are in final preparation.

This project is a milestone, demonstrating PNGUoT's capability to manage large-scale public-funded engineering projects.

STAFFING STRUCTURE & CAPACITY RISKS

Current Staffing Structure

- Director – Mr. Sona Anegi
- Water and Sanitation Engineer - Vacant
- Appropriate Technology Engineer – Mr. Robert Kipong
- Scientific Officer (FDSP) – Mr. Donald Darius
- Renewable Energy Engineer – Mr. Nosare Maika
- Admin Officer – Ms. Joberth Wape
- Admin Assistant – Ms. Barbara Steven
- Technical Officer (Senior) – Mr. Ronald Dei
- Technical Officer (Plumber) – Paul Pawa
- Department Janitor – Mrs. Illeen Sasarago

Departure of Key Engineering Staff

Mr. Robert Kipong, Appropriate Technology Engineer, will commence Master's studies overseas in January 2026. His departure removes a core engineering capacity in:

- Technology design
- Community demonstration work
- Mechanical fabrication
- Field engineering supervision

Resulting Capacity Gap in 2026

Resulting Capacity Gap in 2026

After January 2026, ATCDI will have only one core technical officer (FDSP Scientist).

Operational Risks

- Inability to execute externally funded projects
- Delayed implementation of the DNPM-funded Dei District Project
- Loss of stakeholder confidence
- Reduced capacity for feasibility studies
- Breakdowns in reporting, compliance, and field supervision

This represents a critical threat to the continuity of ATCDI's national operations.

KEY INSTITUTIONAL CHALLENGES

The following long-standing challenges continue to undermine ATCDI's efficiency:

1. Chronic manpower shortages
2. Administrative misalignment between field operations and university systems
3. Increasing national demand without proportional institutional support
4. Lack of a semi-autonomous framework suited to project-driven work

Addressing these challenges is essential to preserving the Institute's operational strength.

RECOMMENDATIONS FOR 2026 AND BEYOND

1. Appoint an Acting Director immediately to ensure leadership continuity.
2. Recruit casual engineers in Water & Sanitation, Appropriate Technology, and Renewable Energy.
3. Establish a streamlined procurement workflow for externally funded projects.
4. Review ATCDI's structural model, including semi-autonomous status.
5. Strengthen project accounting mechanisms to improve partner confidence.
6. Reintroduce technical officer positions lost through previous restructuring.

These actions are required urgently to prevent operational downtime in 2026.

CONCLUSION

ATCDI has delivered exceptional national impact over the past five years under the current director - bringing engi

neering solutions, livelihood technologies, and community development expertise to remote areas across Papua New Guinea. The Institute has amplified the University's identity as:

- A centre of applied science
- A solutions provider

However, ATCDI now faces the most significant organisational transition in its history due to the resignation of the Director and the departure of its key engineer.

- A partner to government, districts, provinces, churches, and corporate institutions and business houses/ companies

However, ATCDI now faces the most significant organisational transition in its history due to the resignation of the Director and the departure of its key engineer.



Installation of biogas pilot plant at ATCDI workshop.



Upgrade from ram pump to solar bore pump at Gobadik.





Nauti youths taking part in the brick making training at ATCDI, Harmony Gold Mine



Wakop Micro-hydro feasibility study carried out



Work started on new brick mould to address manual handling issues



Work started on new brick mould to address manual handling issues



Visit from the University of New South Wales to



Construction of a new ram pump testing shed is underway-was completed that same month



Trainees awarded certificates of completion and volunteers awarded services certificates



ATCDI with CIS Senior Executive Management in Port Moresby



Liklik Buk Information Centre

The Liklik Buk Information Centre is an information hub within ATCDI that provides educational materials, technical manuals, and resources on appropriate technology and community development.



Appropriate Technology Program

This program covers various sectors, including water, agriculture, housing, and waste management. The goal is to empower communities with knowledge and tools that fit their specific needs and environmental contexts.



Energy Program

The Energy Program focuses on promoting sustainable energy solutions for rural communities, such as solar power, micro-hydroelectric systems, and other renewable energy sources.



Food & Downstream Processing

This program seeks to enhance food security and promote value-added processing of local produce. By improving post-harvest processing and storage techniques, ATCDI helps rural communities increase their income potential and reduce food waste.



Water and Sanitation (WaSH)

This program aims to provide rural communities with access to clean and safe drinking water, as well as proper sanitation facilities.

Five Key Program Areas

Centre of Excellence for Environmental Research (CoEER)

Introduction

The Environmental Research and Management Centre (ERMC) was established in 1993, and in 2025, was renamed the Centre of Excellence in Environmental Research (CoEER) by the current board. The name change was needed to accommodate the mandated roles and responsibilities of the CoEER in environmental research, focusing on environmental sustainability and sustainable use of natural resources with minimal negative impacts. Sustainable use and management of natural resources are impossible when the general environment is adversely impacted. Therefore, most research focuses on understanding the management of degraded environments using environmentally friendly techniques and strategies. Most of these are underpinned by climate change and environmental sustainability. The management component includes contributions to policy and plan, e.g., biodiversity conservation, protected area establishment, regulation and control, monitoring and risk management, biosecurity and transboundary movement, and border surveillance. Developing regulatory frameworks for the proper administration and management of the environment and natural resources towards benefit sharing, capacity building, research and development, and conservation and management underpin the overall research responsibilities of CoEER.

Research for development

In line with the renaming of the center and the PNGUoT Strategic Plan 2025 – 2029, the CoEER has developed an implementation plan 2025 – 2029 covering Three Strategic Initiatives: a reputable center of excellence for research, a solution-driven and Dynamic culture of scholarly publications. These three strategic initiatives were used to develop the Strategic Objectives, Goals, and Actions for the planning period. Moreover, a very strong board, with representation from the faculties of Natural Resources, Engineering, Sciences, Built Environment, and Humanities, was formed, with a self-explanatory term of reference. This is a significant initiative to provide CoEER with strategic direction and oversight of the strategy's implementation in the best interests of the University. Additionally, pooling technical expertise from various schools forming the Working Research Group provides CoEER with the leverage and strength needed to do multi-disciplinary research and promote R&D.

Staffing and recruitment:

Several key positions have been established for the CoEER in consultation with the Human Resources Department, three of them have been advertised and interviews conducted. All of them are pending recruitment:

- (a) Environmental (Terrestrial and aquatic) biologist,
- (b) Environmental chemist,
- (c) Laboratory manager.

Staff development

Dr. Patrick Michael has attended a week-long training program on agricultural research leadership and management in Penang, Malaysia, sponsored by the Crawford Fund, Australia.

Laboratory upgrade, equipment acquisition, and modernization of facilities

The two leading laboratories are basically unusable, requiring maintenance, upgrades, and modernization, with no equipment and basic glassware. This has been addressed by fixing the aircons, installing additional computers, projectors, and proposing a plan to modernize the labs. Discussions on acquisitions and introductions have been made with proposed support from Ramu Nico Company, Ok Tedi, and two other overseas-based industries. The office spaces, staff amenities, computer room, and conference room have been modernized.

A spectrophotometer worth AUD\$37,000.00 and K23,000.00 accessories, a microwave, and desiccator equipment worth more than K50,000.00 were bought for the PNG Analytica Laboratory at the School of Agriculture using funds from the CSIRO PNGRIS-2 project.

The CoEER website has been dramatically improved and modernized, and is live here: <https://www.pnguot.ac.pg/research-at-pnguot/research-centres/ermc>.

Service subjects taught at the School of Applied Physics and the School of Agriculture

- a. Crop Modelling and Agroclimatology (MSc) – School of Agriculture.
- b. Climate Change and Environmental Science (MSc) – School of Applied Physics.
- c. Agriculture environment and sustainability (BSc) – School of Agriculture.

Current and ongoing (research) projects since 2024:

- i. Certificate II in Project Planning and Management – The syllabus of this course has been written in consultation with Global Green Growth Institute (GGGI) and Climate Change and Development Authority (CCDA). GGGI has sponsored thirty-five students, and the course is taught online by the staff of CoEER, Civil Engineering, and Mechanical Engineering. Those who have completed the course have sat for the exam and certificate will be issued towards the end of this year. K70,000.00 total funding.
- ii. The PNGRIS2 – The PNG Resource Information System 2 (soil) project with ACIAR is in its third year and staff from CoEER, Agriculture and Surveying and Land Studies are involved. This is a team project and Director of CoEER is the team leader of the PNGUoT team. The project will end in December 2026. Over K600,000.00 total funding.
- iii. Project examining climate impact in PNG with Climate and Security Policy Centre at the Australian Strategic Policy Institute (Climate and Security Policy Centre, Australian Strategic Policy Institute (ASPI.)) In partnership with ASPI, a concept paper was written for development and ongoing.
- iv. Climate change, sustainable energy, and nuclear safety – This is an EU project at its very early stage. A table of Partners Form was filled and sent with the CV of the Director and ongoing.

- v. Irrigation and mechanisation of sweet potato production in PNG – opportunities and limitations. CoEER and NARI have partnered with the University of Queensland to develop the concept notes, and submitted to ACIAR for consideration.
- vi. Improved sweet potato production management project – This project has advanced, and further discussion with leaders from ACIAR and CSIRO is ongoing.
- vii. New Guinea Islands Cocoa Project – This is an ACIAR project where the first component has been completed, but CoEER will be involved in several studies in the second component. Initial discussions have been held, and more direct involvement will occur as the second component of the project kicks off in 2025.
- viii. Development of a stereo-intelligent agricultural ecosystem monitoring system and its application with Yantai Institute of Coastal Research, Chinese Academy of Science, China. This project has reached the advanced stages, and the Chinese team is seeking funding from their end, ongoing.
- ix. A targeted and structured genetic and agronomic traits improvement approach for winged bean to contribute to food and nutritional security in PNG under climate change. APEP has funded K110,000.00, and the research is into a full agronomic trial.
- x. Capacity building in the higher education sector (EU-FC-CB) – The working document has resulted in several students fully funded for master's study at K200,000.00 a student. Two student proposals from CoEER have been awarded funds, one for K200,000.00 and another for K50,000.00. The third student was sponsored for K200,000.00 and will be co-supervised with a colleague from the School of Agriculture.
- xi. The effects of climate change on the altitudinal shift of lowland crops into the highlands of Papua New Guinea: An investigation into the changes in agroclimatic conditions causing the altitudinal growth of lowland crops along the Okuk Highway – Pacific Development Research Grants, New Zealand & PNGSTS. Proposed total funding of K100,000.00 for a PhD project.
- xii. Turtle conservation project with Wafi Golfu – Discussion has advanced, and arrangements for the site visit are in place, including training for students. Wafi Golfu, UPNG, and CoEER are working on the project, which is ongoing.
- xiii. Managlas (Oro Province) Plateau Forest Climate and Biodiversity Project Funded by EU – CoEER is in the final stages of discussion with the Project Management team to engage students (postgraduate studies and undergraduate field practice). At this stage, students from the Department of Agriculture and Forestry are targeted. Two students for master's study have been endorsed for the 2026 academic year.
- xiv. Central Cassava Farming Project with PNG Hydro Development Limited (Chinese Company) – CoEER was approached in 2023 for initial inputs on the crop suitability assessment, and following that, the company visited again to develop an MOU for further involvement and student training. This is an ongoing project.

- xv. Carbon Trade Project with PNG IPA and an investor from Dubai under the Green Climate Initiatives – This project has started in partnership with PNG IPA and the investor, initially working in Woodlark Island, Milne Bay. This is an ongoing project.
- xv. Capacity building in the field of higher education (ERASMUS-EDU-2024-CBHE – Over a million-kina worth of laboratory equipment submitted. Partner has resubmitted the proposal to the EU in 2025.

Proposals for funding submitted in 2025:

- i. JICA PIM – PNGUoT Training Program – K246,685.00 proposal and budget submitted to the Embassy of Japan, Port Moresby, and under consideration.
- ii. Small Grant Application for US Embassy Port Moresby – US\$50,000.00 proposal submitted. Proposal for environmental research is under consideration.
- iii. Expression of interest – SC125073 PNG: Scoping Assessment for Building Resilience to Climate Change Phase 2 – Climate Application Specialist and Team Leader. Asian Development Bank (ABD).
- iv. PNG Fresh Food Marketing System – Sanitary and Phytosanitary Systems (ADB). Proposal Questionnaire submitted (ongoing). Equipment support for schools.
- v. More than ten student project proposals submitted to the EU-FCCB Master’s Scholarship for 2026.

Postgraduate student projects

Several postgraduate projects supervised out of CoEER, either in the final stages or ongoing, are listed in Table 1.

Names of students	Titles of the projects undertaken
Topas Peter (MSc)	The assessments of the effects on soil chemistry and responses of sweet potato in biomass production to organic matter in composted mounds in Papua New Guinea. Graduated in 2025.
Levy Kasa (MSc)	Agricultural use of treated piggery sludge to minimise environmental impact under humid lowland tropical agroclimatic conditions. Graduated in 2025.
Shen Sui (MPhil)	Organic matter amendment of swidden fields to maximize the yield of sweet potato along an altitudinal gradient in Papua New Guinea. Graduated in 2025.
Shirelyna Aipa (MPhil)	Evaluating the roles of organic matter application on soil fertility under cocoa and crop productivity under humid lowland agroclimatic conditions in Papua New Guinea. Completed write-up and awaiting submission in November 2025.
Veronica Homband (MSc)	The role of organic matter of varying nutrient content on soil fertility and yield of corn under humid lowland conditions in PNG. Completed studies and will be writing up in 2025.
Nathanya Alfred (MSc)	Investigating the effects of organic matter of varying nutrient contents on the rooting and tuber formation of the wined bean. Completed coursework and will be conducting research in 2025.
Paulus Kop (MPhil)	Effects of Balsa plants on soil physiochemical properties and carbon sequestration potential in the Gazelle Peninsula, ENBP (2025).
Jonah Anton (MPhil)	Exploring the diversity of marita in various agro-ecological zones in the highlands and Momase in PNG based on morphological and physio-chemical characteristics (2025).
Noelyne Fandim (MPhil)	Assessing the effects of climate change on storage pests under PNG lowland conditions (2025).
Kiole Imale (MPhil)	An assessment of how alien plants establish themselves in the ecological succession of tropical rainforest: An experimental test in Papua New Guinea (2025).
Penuel Togonawe (MPhil)	Investigation into the sustainable production of Arabica coffee in the higher altitude of Madang, Madang Province (2025).
Alice Pokon (MPhil)	Assessing the Feasibility of Enzyme-treated Coffee Pulp as a Nutritional Supplement in Weaner Pig Feed (2025).

Postgraduate student projects funding obtained in 2025 (external only)

1. Jonah Anton – K50,000.00 (EU-FCCB Scholarship). K25,000.00 for Dr. Michael.
2. Alice Pokon – K200,000.00 (EU-FCCB Scholarship). K25,000.00 for Dr. Michael.
3. Kiole Imale – K200,000.00 (EU-FCCB Scholarship). K50,000.00 for Dr. Michael.
4. Dr. Patrick Michael – K50,000.00 (APEP and CCDA) for winged bean research.

Undergraduate projects

The undergraduate students from the School of Agriculture who are undertaking research with the CoEER are listed in Table 2.

Table 2. The total number of undergraduate students' projects under the supervision of the CoEER Director in 2025.

Names of students	Titles of the projects undertaken
Stanford Dupi	Investigating the effects of organic matter of high carbon content on rooting and tuber formation of winged bean
Peter Nanu	Investigating the combined effects of organic matter with high carbon and nitrogen content on soil chemistry and winged bean biomass production
Eunice Huas	Investigating the effects of organic matter (sheep and goat manure) on selected soil properties and biomass production of winged bean

Memorandum of Understanding

The Centre has begun establishing a number of MOUs to pave the way and enhance collaborative research for staff and students. There is more planned for 2026, and the first three are:

- i. Ramu Nico Company – Signed, supported K50,000.00 for 50th Anniversary celebrations. Supporting industrial training for various schools and equipment for labs, including CoEER. The purpose is for CoEER to do collaborative research.
- ii. YUS Tree Kangaroo conservation and research – CoEER has drafted the MOU with the support of the University Lawyer and is with YUS for their input. It will be signed in 2026. The purpose is for CoEER to work with YUS on tree kangaroo research.
- iii. Climate Change Development Authority – MOU to be drafted by CCDA, 2026.
- iv. More will be done in 2026 to ensure the CoEER has established contacts and areas of research.

PUBLICATIONS

(i) Journal

- a. Michael, P. S., Rob, R., and Fitzpatrick, R. (2025). The roots of common terrestrial and aquatic plants can mitigate stresses of acid sulfate soils under varying moisture regimes. *Annals of Tropical Research*, 47, 32 – 44.
- b. Peter, T. M. and Michael, P. S. (2025). The effects of organic matter on soil chemistry of composted mounds under sweet potato in Papua New Guinea – an assessment of soil health and crop yield implications. *Applied and Environmental Soil Science* (submitted, 2025).

(ii) Conference

- a. Michael, P. S. (2025). A targeted and structured agronomic and genetic traits improvement approach for winged bean production to contribute to food and nutritional security in PNG under climate change. 2025 3rd PNG Climate Summit, October 1st to 3rd, 2025, Hilton Hotel, POM, NCD, PNG.

- b. Michael, P. S. (2025). The roles of cogon grass bio-char in soil fertility management and sweet potato tissue composition of nutrients under humid lowland tropical agroclimatic conditions. The 6th Pacific Islands Universities Regional Network Conference. July 1st to 3rd, 2025. The PNG University of Technology, Lae, MP, PNG.
- c. Topas, P. and Michael, P. S. (2025). The roles of organic matter of varying nutrient content use as amendment in composted mounds on sweet potato tissue accumulation of micronutrients. The 6th Pacific Islands Universi Universities Regional Network Conference. July 1st to 3rd, 2025. The PNG University of Technology, Lae, MP, PNG.
- d. Anton, J., Amben, S., Ahizo, J., and Michael, P. S. (2025). A comparative assessment of marita (*Pandanus conoideus*) production challenges and opportunities for further research and development in Papua New Guinea – A Review. The 6th Pacific Islands Universities Regional Network Conference. July 1st to 3rd, 2025. The PNG University of Technology, Lae, MP, PNG.
- e. Peter, T. and Michael, P. S. (2025). The effects of organic matter of legume origin on soil chemistry of composted mounds under sweet potato production in Papua New Guinea. 2025 3rd PNG Climate Summit, October 1st to 3rd, 2025, Hilton Hotel, POM, NCD, PNG.
- f. (Aipa, S. and Michael, P. S. (2025). Assessing the importance of organic matter application in old cocoa plantation soil to manage soil fertility and yield responses of cocoa under tropical lowland agroclimatic conditions in Papua New Guinea. The PNG University of Technology Annual Postgraduate Seminar, 2025. October 1st – 3rd 2025, The PNG University of Technology, Lae, MP, PNG.



South Pacific Institute for Sustainable Agriculture and Rural Development (SPISARD)

Introduction

The South Pacific Institute for Sustainable Agriculture and Rural Development (SPISARD) is the outreach extension arm of the School of Agriculture, established in 2003. The Center operates as a conduit, bringing together expertise from the other Schools within the Papua New Guinea University of Technology, reaching out to the peri-urban and rural communities to drive community development. It promotes sustainable agriculture and rural development through tailored extension activities, training, and the dissemination of innovations and improved, sustainable technologies, as per the needs of communities. The institute conducts research on food and cash crops, and livestock to improve farming practices, productivity, and income while minimizing environmental impact.

Over time, the SPISARD expanded its focus to include household food security, livelihood strategies, gender issues, resource management, health, education, water supply, sanitation, and more. The Institute uses a model village approach for research training and extension, involving the target population, communities, students, and academic staff. This approach ensures real-time feedback and a participatory process, with activities conducted in model villages across various agro-ecological zones.

Vision

The Institute envisions itself as a dynamic leader in extension and sustainable agricultural development, providing lifelong learning and positively impacting rural communities in Papua New Guinea, and eventually, in other Pacific Island Countries.

Mission

The Institute's mission is to advance 'Smart Villages', enhance skills for rural development, foster collaborative action and learning through demonstration projects and centres, and encourage direct farmers' participation to improve farming systems, increase productivity, income, and food security while sustainably managing the environment.

Alignment with the University's Strategic Plan

SPISARD's activities are aligned with Theme Three of the University's Strategic Theme, which promotes Strategic Partnering.

Key highlights of the year

Core functions and activities

The Institute's functions include applied research, training, development of farm implements and post-harvest technology, extension services, market and agribusiness information, technology transfer, policy evaluation, advisory services, promotion of agricultural biodiversity, rice cultivation, aquaculture, agroforestry, and traditional farming systems.

Staffing and resources

Staff numbers (admin, new staff, promotions, or training)

Acting Director – Dr. Veronica Bue

Senior Technical Officer – Ms. Tabitha Parau

Project Highlights

Trainings

- ✓ Fish farming training in Borugasusu Tamata LLG, Sohe District, Oro Province
- ✓ Building a Solar Dryer Training in Borugasusu Tamata LLG, Sohe District, Oro Province
- ✓ Cocoa training in Borugasusu, Tamata LLG, Sohe District, Oro Province
- ✓ Training in bulb onion production in three villages in Markham District, Morobe Province



Photo 1. Training participants are building a solar dryer to dry grated cassava and sweet potato for fish feed production.

Community Projects

- ✓ Establishment of tilapia breeder fishpond in Borugasusu, Tamata LLG, Sohe District, Oro Province
- ✓ Western Highlands Provincial Government keen to work with SPISARD and ATCDI on a water project in Tabaga Village, Tambul/Nebilyer District.
- ✓ Replacement of cocoa seedlings in the budwood garden that was destroyed by flood in 2024 in Masandanai Village, Angoram District, East Sepik Province



Photo 2. A youth replanting a cocoa variety in the budwood garden destroyed by a flood.



New projects/activities initiated.

- ✓ Taro Project Markham Valley, Morobe Province
- ✓ Provision of 10 cocoa budwood gardens to villages in the Markham Valley, Morobe Province.
- ✓ Introduction of ducks and piglets to Hamara, Kokoda LLG, Sohe District of Oro Province.
- ✓ Distribution of sanitary pads to women and girls in Masandanai project site, Angoram District of East Sepik Province.
- ✓ SPISARD conducted awareness on menstrual hygiene and distributed sanitary pads.



Photo 3. An Established taro farm in Marayai village, Markham Valley.



Photo 5. Women with their harvested bulb onions.

Cost-saving measures (if any)

Industry Partnerships – key collaborations with the private sector/government/NGO

- ✓ The institute is currently partnering with Fresh Produce Development Agency (FPDA) and Markham Smart Farmers Association to train farmers on bulb onion production and the development of model farms.
- ✓ Rotary Club and Sewing Sisters, Perth, Australia, to supply sanitary pads for women and girls in SPISARD's Model communities.

Community impact projects – outreach, awareness, community initiatives

- ✓ Improved nutrition for the people of Hamara, Sohe District, Oro Province through SPISARD's inland fish farming project. Over 60 households own a fish pond which supplies enough table-sized fish for a balanced diet.
- ✓ Improved income for women farmers in Umisi-siang, Marayai, and Ragidumpiat villages of the Markham Valley from the production and sale of bulb onions.
- ✓ Increased cocoa clonal varieties through the SPISARDs cocoa project in Masandanai project site, Angoram District, East Sepik Province.



Photo 4. Women & girls with their pack of sanitary pads.

Challenges and Way forward

A major challenge for the Institute is securing adequate funding. Currently, the Institute receives K100,000,000.00 annually from the University, which is allocated to support community project initiatives and training programs. To ensure sustainability and expand its impact, SPISARD recognizes that partnerships are the way forward. The Institute is committed to strengthening collaborations with key industry stakeholders and provincial and local governments to continue its outreach activities in peri-urban and rural communities. Through these efforts, the Institute aims to make a meaningful contribution to community development.

Melanesian Land Studies Centre

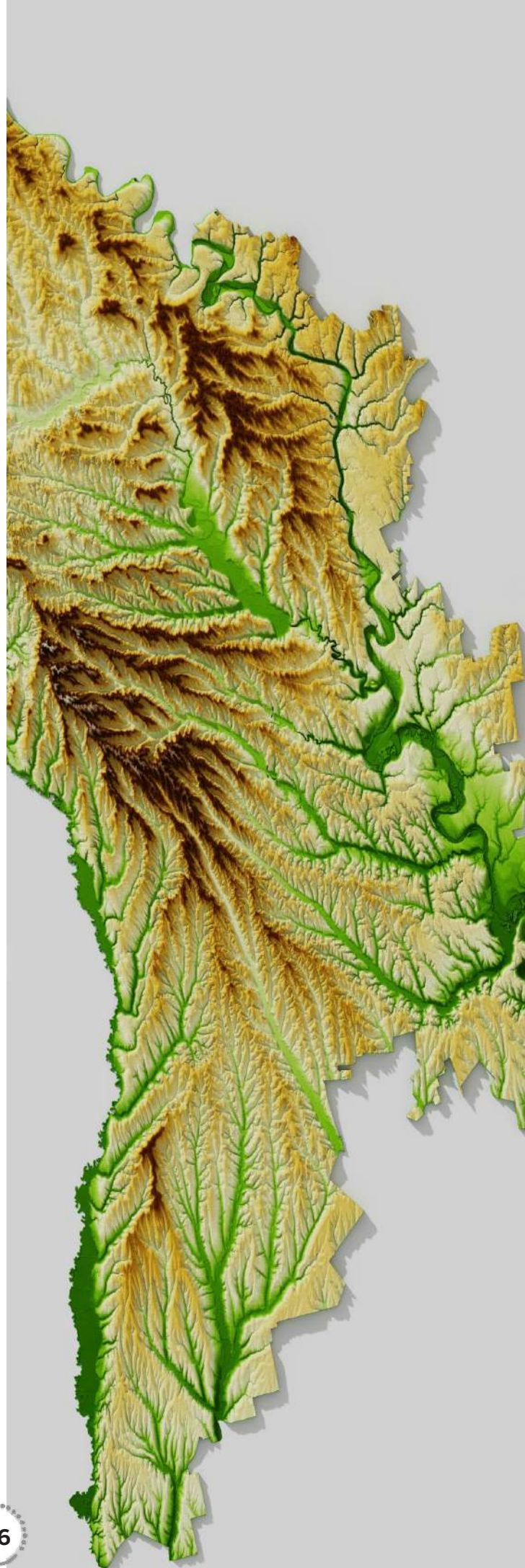
Introduction

The Melanesian Land Studies Centre (MLSC) was established in 1983 to serve as the research hub of the then Department (now School) of Surveying and Land Studies located within the Sandover Building. Since its establishment, the MLSC has been managed in-house by academics as centre managers. The appointees perform this additional role in addition to their academic duties. Due to a lack of sufficient funds and no approved governance and support structure, including a stand-alone office and administration staff, the centre has been operating on an ad hoc basis, which has contributed to it being non-profitable.

The MLSC vision is “to be a national and regional leader in research, innovation and training in the areas of land management, property development and planning, surveying and the geospatial sciences” which is aligned with the School of Surveying and Land Studies (SSLS) vision ‘To be a national and regional leader in land and geospatial sciences, education, research and innovation that is impacting society’. The MLSC’s mission “is to produce world-class and locally relevant research, and to foster collaboration between academia, industry, local and resource communities through ongoing research projects, innovation, publication, training and teaching”. The MLSC’s mission is aligned with the SSLS’s mission, which is ‘to produce globally recognized land and geospatial professionals through high-quality scientific and technological knowledge-based teaching, research, and innovative application’. Moreover, the MLSC’s vision and mission are aligned with the PNG University of Technology Strategic Plan 2025 to 2029, specifically to the pillars; 1. Academic Excellence, 2. Research, Innovation & Development, 3. Strategic Partnering, and 4. Institutional Capability.

The key highlights for MLSC in 2025 are:

- Bachelor of Science in Geomatics distant program continues to be offered. We expect 10 final year students from the second batch to graduate in April 2026.
- Confirmation of 50% plus (n=6/8) to resume the shelved Master of Urban and Regional Planning in February/March 2026.
- Completion of rebranding and revitalization of MLSC operation: MLSC’s proposed Business Plan, Strategic Plan 2025 to 2030, and Annual Work plan for 2025 together with a proposed organization governance structure were submitted through the office of the Head of Survey and Land Studies for management approval on July 09th 2025.
- The MLSC, through its academic experts/researchers, participated as paper presenters in two international and two national land and geospatial congresses and conferences this year.



- The MLSC offered CPD training during the semester break in June 2025, covering the areas of land administration and land compensation, MapInfo level 1 and 2, introduction to handheld GPS, and advanced surveying technologies and mapping systems. A total of fourteen (14) participants attended, bringing in total revenue of K48,650, which is 18% of the total revenue of K261,330 generated as of September 30, 2025 (MLSC P&L Statement, September 30, 2025).
- The MLSC under the SSLS collaborated with the Schools of Agriculture and Communication & Development to deliver GrowPNG's WAPP Training of Trainers program from the 17th to 27 November. A total of 18 participants from the Markham area completed the training.

Core functions and activities

The MLSC's key focus is on research and publication; however, it also offers consultancy services related to surveying, geographic information systems, land administration, property management and valuation, and urban development and planning. Additionally, it short-term continuous professional development training targeting the workforce in land-related industries and provides community service through the dissemination of technological information and the imparting of knowledge. Moreover, the centre also offers a distant mode undergraduate (Geomatics) program and will resume its postgraduate program Master of Urban and Regional Planning) in February/March 2026.

The MLSC ensures all its service progress is regularly monitored and evaluated for sustainability and growth purposes.

Staffing and resources

After four decades of absence of an approved organizational structure and non-annual appropriation from the university, the current management of the School of Survey and Land Studies (the MLSC committee) has, since July, reviewed MLSC's operation and submitted a proposed organizational structure to PNGUOT management's approval. In terms of resources, the centre continues to draw its expertise from 22 high-caliber professionals with local and international teaching and research experiences covering land-related disciplines in surveying, geographic information systems, land administration, property management, valuation, and urban planning. These are the academics employed with the School of Survey and Land Studies. The MLSC operations and sustainability continue to depend on its fundraising strategy to secure funds from a variety of sources, including consultancy services, partnerships with industries and non-government organizations, and course training fees.

Research and Innovation Highlights (Only for Research Centres/Institutions)

Notable research projects:
No research projects undertaken this year, 2025.

Publications:
MLSC's in-house 'Melanesian Journal of Geomatics and Property Studies' volume 11 is expected to publish five papers in December 2025.

Conferences:

The MLSC, through its academic experts/researchers, participated as paper and workshop presenters in the following international and national congresses and conferences:
FIG Congress Brisbane (2 x papers)
PIURN 6th Conference PNGUOT, Lae (4 x papers)
GEOPNG Inaugural Congress PNGUOT, Lae (9 x papers and 2 x workshops)
ASPNG 57th Congress, Port Moresby, NCD (12 x papers)

Collaborations:

No direct collaboration has been established yet; however, MLSC will join through the School of Surveying and Land Studies, which has established a collaboration with the industry.

Project Highlights

The PNGUOT engaged MLSC to provide survey consultancy for the following:

- Survey for Access Road– New Students' Mess: Commenced on May 5, 2025, and completed on June 2, 2025.
- Survey for Utilities – UniCity: Completed on July 25, 2025.

MLSC also collaborated with the Schools of Agriculture and Communication & Development to deliver GrowPNG's WAPP Training of Trainers program from the 17th to 27 November. A total of 18 participants from the Markham area completed the training.

Challenges and Way forward

The key challenge for MLSC has been a lack of organizational structure and office space to operate for almost four decades since its establishment. This had greatly affected its ability to operate profitably and to successfully deliver its core activities.

The SSLS management, through its MLSC revitalization committee, has addressed this challenge by completing an overhaul review of the centres' operation and successfully developed the following:

- Proposed MLSC Business Plan
- MLSC Strategic Plan 2025 to 2030
- Proposed Organizational Structure
- MLSC Annual Work Plan 2025.

These documents are currently pending approval from the appropriate PNGUOT authorities. The way forward for MLSC is to successfully implement its 5-year strategic plan once it is approved.



Sustainable Energy Research Institute (SERI)

Introduction.

The PNGUoT Sustainable Energy Research Institute (SERI) provides a collegiate environment for all Renewable Energy Practitioners at our university to come together, interact, and conduct collaborative research, consultancy activities, and professional training under one umbrella.

In alignment with the University Strategic Plan, SERI's vision and aspiration is to commit to excellence in education, research, and community engagement. SERI also strives to be the 'library' of all credible information and databases pertaining to all forms of energy, energy research, and development technology in PNG.

Staffing and Resources

The SERI lab and SERI office are currently located within the School of Applied Physics. However, due to space constraints, the membership, staffing, and resources of SERI could not all be localized at AP. It is distributed over PNGUoT. The staff members, volunteers, trainers, and faculty members carry out the SERI duties assigned to them from their desks in their various schools and faculties, where they are primarily involved as academic or technical staff. Capacity building, preparatory training, and professional development exercises are carried out at APL 2 and APL 3.

Solar awareness training is conducted at the University Security House office building. This is a functional 15 kW rooftop solar installation. It serves as a practical 'hands-on tool' for training professional solar installation practitioners.



EU/UNDP/SERI Solar training facility at PNGUoT

SERI 2025 Core Functions and Activities

In addition to assisting local professionals and overseas investors with their energy-related enquiries, SERI participates actively in national and international energy forums and activities on Research, Consultancy, postgraduate and Professional Field-Training in Renewable Energy.

It is anticipated that the 2025 PNGUoT collaboration agreement with the National Energy Authority NEA will transform the Institute into the National Centre of Excellence in Renewable Energy (CoERE).

The CoERE steering committee (SERI senior staff members) has made a formal request to the University for a temporary start-up office for the Centre of Excellence. Funding will be required from the University and external donors for a permanent site for the CoERE.

Research and other Core Events and Activities

SERI participated actively in the following academic and professional events in 2025.

1. 1Feasibility Study and Optimal Design of Hybrid Photovoltaic (PV) Solar – Micro-Hydro Power Supply to Bena SDA High School-EHP
2. Design and construction of a prototype hydro-powered water pump for a Kainantu community.
3. Ocean Salinity Power collaboration research (Ongoing research by SERI Secretariat in collaboration with a South Korean University, UPNG, CCD, and invited GO's)
4. SERI Solar awareness: - carried out routinely for the benefit of PNGUoT staff and students.
5. Participation at ADB-sponsored PNG National Power Sector Forum on 3 April 2025: - A high-level forum where PM James Marape announced the action plan of his government that will focus on providing reliable, affordable, sustainable energy for promoting comprehensive and inclusive economic growth. It was an honor to be funded by ADB to participate in this forum alongside the Government of PNG Ministers and Senior Officials, ADB Management, PNG Energy Sector Agencies, Development Partners, Academia, the Public and Private sectors.
6. Participation at UNDP / NEA-sponsored PNG National Energy conference on Advancing Energy Access: PNG Mini-grid Policy and Implementation: Nov 2025
7. British High Commission- Visit of the Deputy High Commissioner to PNGUoT on Wednesday 9th April
8. Commencement of the TEA-LP MSc program in Climate Change and Renewable Energy Access.
9. Multi Hybrid Power System combining Hydro, Solar, Wind, and Biodiesel.
10. (This is ongoing research headed by Dr Shoeb Syed: Dean; - Faculty of Engineering). With additional funding from the PG school, the research is at its second phase of student involvement.

11. One-week solar design and installation training and certification of Buin Power employees from 26 October to 30 Oct 2025. Sponsored by the Japanese Government and UNDP.



Bougainville trainees with their certificates at the Buin solar-powered Innovative Centre



SERI Trainers and trainees at the 1MW Buin Solar Farm. Sponsored by the Japanese Govt, UNDP, and ABG (Autonomous-Bougainville) Government

The Buin 5-day training was focused on Solar Photovoltaic site assessment, design, Sizing, installations, commissioning, operations testing, routine service, and maintenance.

Overview

Renewable Energy Training and Consultancy is the national and international Community- Engagement focus of SERI. It is the primary income generating activity of the institute. It has the potential to enable SERI to be a self-sufficient organization.

SERI members and officers rely on the internet for sourcing and submitting applications for “Request-for-Proposals (RFPs)” issued by international donors and banks. A successful bid becomes a Renewable Energy consultancy project for SERI and its members.

The main highlight of SERI in 2025 is the commencement of the MSc program in Climate Change and Renewable Energy Access (Co-sponsored by the UK Govt) and the signing of the MoU with the National Energy Authority (NEA).



Photo above: -PNGUoT VC (Prof Ora Renagi) and NEA CEO Mr Ronald Meketa signing the agreement between the National Energy Authority (NEA) and PNGUoT. Second photo above: - NEA CEO visit to the SERI lab/



SERI Training Collaborators and Exhibition Infra-structures

SERI Energy Expert Groups are made up of PNGUoT Lecturers, University Technical Staff and Students; subdivided into the following climate-friendly energy teams.

- Solar and Wind Energy Group
- Hydro & Tidal
- Geothermal
- Bio Energy
- Energy Storage
- Energy Policy
- Atomic & Nuclear Energy
- Energy Management, Efficiency & Green Construction
- Hybrid & Multi-Fuel Power
- Energy Transmission & Distribution
- Climate Change, Energy Pollutions & the Environment
- Sustainable Energy Planning & Feasibility Studies
- Alternative Energy
- Consumers Group: (Safe, Affordable & Reliable Energy Advocates)
- SERI Volunteers group (mainly students)



Centre of Excellence in Biotechnology

Introduction

The Centre of Excellence for Biotechnology (CEB), formerly the Unitech Biotechnology Centre, was established by the Council of the Papua New Guinea (PNG) University of Technology (PNGUoT) in 1997 in recognition of the immense role that modern biotechnology could play in contributing to national development. Although it operates under the auspices of the School of Agriculture (SOA), it reports to the Office of the Deputy Vice Chancellor.

Biotechnology is a powerful enabling technology, with applications that have the potential to revolutionize many industry sectors (including agriculture, forestry, fishing, pharmaceuticals and health, chemicals, textiles, food processing, environmental industries, energy, and mining). Appropriately, the current vision for the CEB, which addresses the nation's development challenges in a changing climate, is "to be leaders in the use of agricultural biotechnology to improve livelihoods". Hence, it strives to achieve high-quality research, training, and development outcomes, with an entrepreneurial character that emphasizes the application of agricultural biotechnology to address issues in food and livestock production, forestry, and the environment in PNG.

The CEB aligns with the university's strategic plan in its efforts in Research, Innovation, and Development (Theme 2) to support agricultural development, and in Strategic Partnership to develop linkages with international and local institutions and stakeholders to address the contemporary research agenda using frontline technologies.

In alignment with the university's efforts to internationalize our programs, CEB has forged partnerships with international partners for collaborative research in agriculture and the biological sciences. This included the development of two Memoranda of Understanding between:

- i. Chongqing Normal University – to undertake research and development work on rice and forestry pests through the "Chongqing Normal University – PNGUT Rice Research Centre".
- ii. National Nanfan Research Institute (Sanya) of the Chinese Academy of Agricultural Science – for front-end molecular genetic research on wild rice and graduate research scholarship.

Core functions and activities

The CEB, with its entomology, crop physiology, tissue culture, and biosafety level-1 facility, operates as a multifunctional research, training, and innovation hub. Its activities span basic science, applied technology, and industry partnerships, which can be grouped into functional domains.

iii. Research and Innovation

Molecular biology and genomics studies the molecular diagnostics of plant-fungal pathogens, such as *Trichoderma* spp. *Beauveria bassiana*, and DNA barcoding of plants such as cocoa (*Theobroma cacao*), taro (*Colocasia esculenta*), galip nut (*Canarium indicum*), and local wild rice (*Oryza* spp.).

Further, studies in plant tissue culture and micro-propagation are being conducted by undergraduate students on the development of protocols for callus induction, somatic embryogenesis, and clonal propagation (especially in coconut). Attempts in standardizing the protocol for plant regeneration in rice, taro, and eaglewood (*Aquilaria crassna*) are being evaluated for transformation studies.

i. Technology Development and Application

Production of improved crop varieties, particularly drought tolerant varieties, is envisaged from our ongoing breeding work on taros, corn and rice. Tissue-culture-based seedling production of taro is being conducted under the ACIAR funded Small Research Activity.

ii. Conservation and Biodiversity

Conservation of the germplasm of endemic wild rice species in the genus *Oryza* is underway. So far, species maintained in an ex-situ field gene bank include, *O. ridleyi*, *O. rufipogon*, *O. longiglumis*, *O. schlechteri*, and *Leersia hexandra*. On the other hand, potato (*Solanum tuberosum*) and taro working collections are maintained routinely under in vitro conditions.

Moreover, to understand the genetic background of local biodiversity, samples of taro, wild rice, and galip nut were subjected to genotyping-by-sequencing using DNA markers (DArT/ SNP). The data generated is being used to assess diversity, population structure, and phylogeny.

iii. Training and Capacity Building

Undergraduate and graduate students' training is conducted through their respective courses. Students are also guided during laboratory practical sessions on tissue culture, molecular techniques, biosafety, and data analysis. Further, postgraduate research students are mentored as they conduct their research projects, and through collaborations with local and international universities.

iv. Industry and Community Engagement

CEB has assisted stakeholders in providing enabling environments by supplying disease-free planting materials, rapid disease diagnostics, and improved crop varieties for farmers and communities.

v. Strategic Functions

The CEB, through its staff, has contributed in policy development and advisory roles at various capacities both nationally and internationally as outlined below:

- Alternate Focal Point for Genetic Modified Organisms (GMO) Issues for PNG through the Department of Agriculture and Livestock to the Food and Agriculture Organization – T. Okpul

- National Bio-safety Committee through the Department of Environment and Conservation – on the safe handling of GMOs and products thereof – T. Okpul.
- Research, Science and Technology Council Member – T. Okpul
- National Agricultural Research Institute Council – T. Okpul

Staffing and resources

The skeleton member of staff of the CEB consists of:

- Okpul, Tom, PhD (UQ), A/ Director and Professor at SOA.
- Mrs Kamen, Totave (DipTech, BARD), Principal Technical Officer from SOA.
- Mr. Aaron Samson, Handyman of SOA

Under this working environment, the productivity of research and development activities is likely to decline as diminishing marginal returns set in. To counter this trend, the CEB should expand its in-house research capacity by employing permanent management and research staff. Strengthening its internal expertise would help distribute the current workload more effectively, enhance operational efficiency, and ultimately improve the volume and quality of research outputs.

Nonetheless, researchers actively conducting research, either independently or with graduate research students (Table 1), were mainly from the SOA and the School of Applied Sciences.

Table 1. Academics who are actively conducting research studies at the Centre.

Researcher:	Areas of research interest
Okpul, Tom (PhD)	Plant Breeding & Biotechnology
Maino, Macquin (PhD)	Plant Pathology, Nematology, Plant Viruses, Biocontrol Agents
Dotaona, Ronnie (PhD)	Agricultural Entomology, Integrated Pest Management, Biocontrol Agents
Ban, Gwendolyn (PhD)	Plant Pathology, Biocontrol Agents
Poloma, Spencer (PhD)	Crop Physiology, Agronomy
David Timi (PhD)	Plant chemistry
Jason Wau (PhD)	Applied Chemistry

Strengthening CEB's research staff's genomic analysis and bioinformatics expertise is essential for effective succession planning and ensuring the long-term sustainability of the Centre's research.

Research and Innovation Highlights

Research projects:

- i. ACIAR Small Research Activity (ACIAR CROP-2023-194): "Enhancing drought tolerance and food security in Papua New Guinea:

Campbell, B., Okpul, T., Smith, M., and Godwin, I. Partners: University of Queensland and PNG University of Technology. Grant: Funding for 2025: Period: 15th November 2023 to 31st January 2025. Extended to 30th August 2026

- i. Wild rice of PNG: exploration, collection, documentation, conservation, and genetic evaluation. Investigators: Okpul, T., Heveakore Maraia, Disna Ratnasekera, and Xiaoming Zheng. Partners: Trukai Industries Ltd, University of Natural Resources & Environment, and Nanfan Research Institute (Chinese Academy of Agricultural Sciences). Period: January to December 2025.
- ii. Wawah, Lisahpo (2025) received an ACIAR grant to attend the TropAg International Agriculture Conference in Brisbane, Australia.
- iii. Wawah, Lisahpo & Okpul, T. (2024-2025). Evaluating the ploidy level and drought tolerance of dasheen × eddoe taro hybrids.
- iv. Gomuna, Naomi S. & Okpul, T. (2024-2025). Evaluating the ploidy level and drought tolerance of dasheen × eddoe taro hybrids.
- v. Hannel, Godfrey & Okpul, T. (2024-2025). Agro-morphological characterization of the galip nut (*Canarium indicum*) population maintained at the NARI-Kerevat Arboretum, East New Britain Province.

Publications:

- i. Gariba Danbaro, Fred Ssemugenyi, and Tom Okpul (2025). Predictive validity of the special tertiary admission test in Papua New Guinea. *International Journal of Education and Practice*, 13(3). 1022-1031. DOI: 10.18488/61.v13i3.4356.

Conferences:

- i. Lisahpo Wawah, Jemma Restall, Bradley Campbell, Millicent Smith, Ian Godwin, and Tom Okpul. (2025). Cytological, genetic, and morphological evaluation of intraspecific hybrids between botanical variants *Colocasia esculenta* var. *esculenta* and *C. esculenta* var. *antiquorum*. TropAg International Agriculture Conference (November 11-13th), Royal International Conference Centre, Brisbane, Australia.
- ii. Lisahpo Wawah, Warendo Mark, Bradley Campbell, Tom Okpul. (2025). Variations of ploidy levels among taros in Papua New Guinea (PNG)-based on stomatal traits. 6th PIURN Conference, PNG University of Technology, Lae, Papua New Guinea.
- iii. Tom Okpul, Cybill Poiya, Cindy Caleb, Foodie Pamaraka, Malcolm Kabiwaga, Christian Bugajim, Peter Buyoyu, and Janet Paofa.

Wild Relatives of the rice plant in Papua New Guinea. Paper presented at the 2025 Wild Rice Germplasm Collection & Characterization Workshop (7-13th December), National Nanfan Research Institute, Sanya, China.

Research Grants:

The CEB did not receive any funding support from the university's recurrent budget. Despite this, all activities were supported by funds from donor projects (Table 2).

Table 2. List of research grants received in 2025

Research project	Donor	Grant (PNG Kina)
1. University recurrent funding	PNGUoT	0
2. (ACIAR CROP-2023-194): "Enhancing drought tolerance and food security in Papua New Guinea: the potential of new taro germplasm"	Australian Centre for International Agricultural Research	740,403.23
3. Wild rice of PNG	Trukai Industries Ltd	20,000.00
4. Lisahpo Wawah: Evaluating the ploidy level and drought tolerance of dasheen × eddoe taro hybrids	The Postgraduate Studies, Research & Innovations Committee of the PNG University of Technology	17,194.22
5. Naomi S. Gomuna: A Comparative Analysis of Food Safety and Phytosanitary Measures for Importing PNG Taro into Australia, New Zealand, Japan and USA.	The Postgraduate Studies, Research & Innovations Committee of the PNG University of Technology	6,950.00
6. Godfrey Hannel: Agro-morphological characterization of the galip nut (<i>Canarium indicum</i>) population maintained at the NARI-Kerevat Arboretum, East New Britain Province	The Postgraduate Studies, Research & Innovations Committee of the PNG University of Technology	15,770.00
	Total	800,317.45

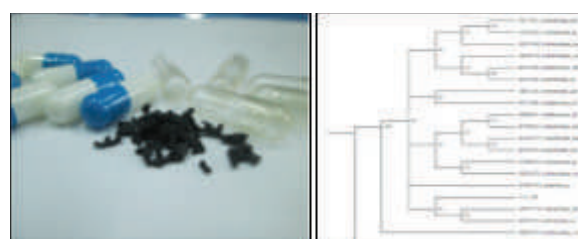
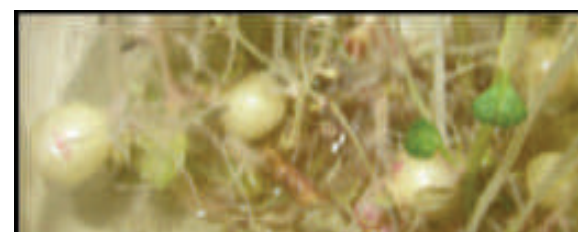
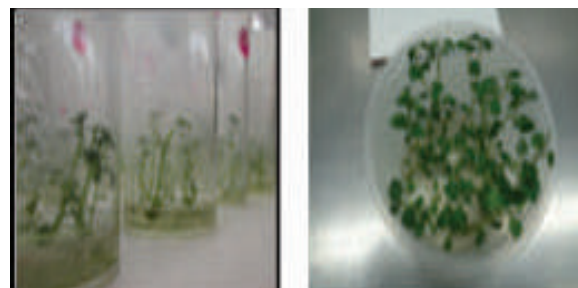
Project Highlights

The outstanding highlight of projects (Table 3) conducted in 2025 ranged from one of our students, Ms. Lisahpo Wawah, who had a short stint at the University of Queensland to determine the ploidy level (number of chromosomes) of several local taro varieties, and presenting her results at the TropAg International Conference.

Table 3. Research project highlights in 2025.

No	Research project	Milestones completed
1	(ACIAR CROP-2023-194): "Enhancing drought tolerance and food security in Papua New Guinea: the potential of new taro germplasm"	<ul style="list-style-type: none"> Evaluation of selected farmers varieties and 10-15 market varieties for drought tolerance Assessment of cross-compatibility among Eddoe (3M) and Dasheen (2M) type taro varieties Stomata and chloroplast counts Flow cytometer determination of ploidy level at the University of Queensland Evaluation of F₁ progenies – Batch 1 & 2 Selection of farmers for participatory variety selection in their fields Attendance at TropAg Conference, 2025
2	Trukai Smart Rice Farmer Training	<ul style="list-style-type: none"> Training for Batch 5 farmers, 9-20th June 2025 Training for Batch 6 farmers, 13-24th January 2025
3	Wild rice of PNG	<ul style="list-style-type: none"> Maintenance of collected germplasm <i>ex situ</i> Morphological characterization of collected germplasm Genotyping by sequencing at Diversity Array Technology using single nucleotide polymorphism Attendance at Wild Rice Germplasm Collection & Characterization Workshop, 2025 Rapid exploration of wild rice in Morobe Province Rapid exploration of wild rice in Central Province

Equipment/ Tool	Qty	Use	Supplier	Estimated Cost (K)
1. Laminar Air flow Cabinet	2	Clean, germ-free environment for tissue culture	Nano Vacuum	30,000
2. Millipore	1	Water sterilization	Fisher Scientific	12,000
3. Incubator Std 300L	1	Microbial culture	Thermo Fisher	70,000
4. Fume Hood	1	Safe handling of volatile chemicals & gases	Alibaba	15,000
5. Air condition (temperature controlled)	2	Tissue culture growth room environment	Local	6,000
6. Tissue culture racks	6	Tissue culture	Alibaba	20,000
7. Real Time Thermal Cycler		Quantitative PCR	BioRad	30,000
8. DNASTar® Software	1	software for sequence analysis, bioinformatics	Achema Pte Ltd	6,000
Total				189,000



Challenges and Way forward

The major challenges that CEB is experiencing are mainly;

- Lack of staff (Researchers and technicians) in certain fields of biotechnology; Limited funding support, and seed money to establish commercial projects, and
- Lack of equipment and other facilities. Several pieces of equipment and computer software (Table 4) are urgently needed to give the CEB its independence and competitive edge in biotechnology research and development, and to qualify for Accreditation.

The Centre is focused on turning the challenges it faces into milestones that need to be achieved in 2026 and onwards, and fully equipping the laboratory in the process towards developing an enabling Centre of PNGUoT. A Centre that can enable us "to be leaders in the use of agricultural biotechnology to improve livelihoods" in PNG.

Table 4. Essential equipment listed in order of priority that are needed to be acquired at the UNITECH Biotechnology Centre

NON-ACADEMIC DEPARTMENTS

The non-academic departments at Papua New Guinea University of Technology provide essential administrative, operational, and student support services that enable the university to function efficiently and support its academic mission. These departments ensure that the campus environment remains well-managed, secure, and conducive to learning, research, and innovation.

Key units under the non-academic section include the Bookshop, Campus Clinic, Human Resources Department, Information and Communication Technology Services, Library Services, Student Support and Facilities Centre, Security Services, Public Relations and Marketing, and Distance Learning. Together, these departments play a critical role in supporting staff and students by managing institutional resources, delivering welfare and support services, maintaining infrastructure and technology systems, and facilitating effective communication within and outside the university community. Their work strengthens the overall operations of the university and contributes significantly to enhancing the quality of campus life and the success of its academic programs.



- Bookshop
- Clinic
- Department of Open & Distance Learning (DODL)
- Human Resource
- Information & Communication Technology Services
- Matheson Library
- Public Relations Office
- PNGUoT Press
- TLMU
- Student Support & Facilities Centre
- Teaching & Learning Methods Unit
- Unitech Enterprise Limited
 - » National Analytical & Testing Services Limited
 - » Unitech Development & Consultancy
 - » UEL Catering
 - » UEL Habitat Rainforest
 - » UEL Guesthouse





CLINIC

Introduction

This report provides a brief overview of the Papua New Guinea University of Technology (PNGUoT) Clinic, located at the Taraka Campus in Lae. The PNGUoT Medical Centre (Clinic) serves as a primary health care provider for students, staff, and the surrounding communities. It was established in 1982. The clinic has grown to serve over 30,000 patients annually. PNGUoT Clinic has two sub clinics, and they are; PNGUoT Bumbo Campus, and PNGUoT Bulolo Campus. Both of these campuses have only 1 nursing officer each, and our Taraka Campus Clinic gives them supplies whenever they need them. . At the end of every month, the two clinics usually submit their internal monthly report to us.

- **Services:** The clinic provides general outpatient services, 24-hour emergency care with ambulance support, pharmacy services, and medical examinations.
- **Preventive Care:** It plays an active role in health education, including family planning, baby clinic health talks, and mandatory health check-ups for new students.
- **Staffing:** The facility is staffed by the Chief Medical Officer, Health Extension Officer, nursing officers, ambulance drivers, a secretary, and janitors.

Vision and Mission Statement

Based on the PNGUoT Medical Centre profile, the clinic's focus on supporting the academic and non-academic mission through health:

Vision:

To promote a healthy campus that enables learning, productivity, and overall well-being.

Mission:

The PNGUoT Clinic provides accessible and reliable health care services to support the health and well-being of students, staff, and the University community, committed to quality care and confidentiality in a safe and supportive environment.

Our key Objectives:

- To provide accessible and reliable health care services
- To support the health and well-being of the university community.
- To promote health education and preventive care

The PNGUoT clinic is essential to campus life, offering a blessing for the health needs of the university and its surrounding neighbors.

Key highlights of the PNGUoT Clinic:

- **Upgrade to Level 3 Hospital:** A major focus is upgrading the current university clinic to a Level 3 hospital to provide enhanced health services to the university community and surrounding areas.



- **High Demand and Service Usage:** The clinic has experienced significant pressure, with patient numbers increasing by roughly 15% annually since 2023, catering to over 30,000 patients annually
- **Community Impact:** The facility is expected to reduce congestion at the nearby Angau Memorial Hospital by serving surrounding communities, as well as university staff and students.
- **Educational and Research Role:** The new hospital facility is intended to serve as a practical training site for the Lae Unitech School of Nursing and students in Bio-Medical Engineering from the School of Applied Physics. Currently, our clinic is a training site for the Lae Unitech School of Nursing and for students in Bio-Medical Engineering from the school of Applied Physics.
- **Inpatients (Day Ward Admissions):** We have only 5 beds at the ward, and one of the beds is strictly for emergency only. While the other 4 beds are for acute – sub acute ill patients, who are admitted to be stabilized with the proper clinical management, and if not improving, then we refer them to Angau Memorial Hospital and Private Hospital upon their request.
- **Emergency Services:** Operating 7 days a week (8am-10pm, Monday – Friday; 9am – 4pm weekends/public holidays) with on-call HEO, doctor, and nurses with ambulance services 24/7.
- **CHNS Baby Clinic:** Every Tuesday, we vaccinate babies from 0 months to 5 years old who visit the clinic. We provide free service for the baby clinic immunization, but we usually charge K15 for facility use to outsiders. For the staff children are free.

2. Core functions and activities

PNGUoT Medical Centre opens 7 days a week to serve our students, staff and dependents and even the outside communities as well.

Our clinic operating hours are:

Weekdays- Monday to Friday: 8am – 10pm,
 Saturday, Sunday, and Public holidays: 9am - 4pm.
 From December to January:
 Week days: 8am to 6pm.

Clinic functions and activities:

2.1. Medical Consultations, Emergency Care, and Special Clinics:

- **Outpatient Consultations:** Providing primary healthcare, medical consultations, and health advice to the University community.
- **Antenatal Clinic:** At the clinic, we have 2 midwives who do the clinic every Wednesday with the help of other general nurses. Every Wednesday is for the antenatal clinic, where pregnant mothers are given counselling, proper check-ups, and important information. Every pregnant mother is checked properly to identify the high-risk pregnant mothers from the low-risk pregnant mothers. The first Wednesday of every month is for the first counselling visit for pregnant mothers with their husband/partner. We charge K15 to outsiders for facility use.
- **Family Planning Clinic:** Every Thursday is Family Planning Day, in which women come in to take either pills or the Depo Provera injection, which is provided at the clinic. The service is open to staff, students, dependents, and outsiders as well.

- **Minor Theatre**

The clinic has a minor theatre in which we do minor operations such as suturing open wounds, performing incisions and drainage for abscesses, excising small warts, applying pop to fractured bones, and removing sutures with cleaning of dirty sores and applying a change of dressing.

2.2. Disease Control and Prevention

- Infectious Disease Management: Dedicated Disease Control Officers provide free services for TB, HIV/AIDS, and sexually transmitted diseases (STDS).

2.3. Student and Staff Health Services

- Mandatory Medical Examinations: Conducting health checks for all new students upon arrival to detect potential health problems early. Also conduct medical checks for pre-employment for our contract and non-contract staff.
- Awareness Campaigns: Conduct outreach on health issues, especially Tuberculosis, Malaria, and family planning on unwanted pregnancy.

2.4. Health Education and Development

- Clinical Training Support: Support practical training for students from the Lae Unitech School of Nursing and Bio-Medical Engineering department.

2.5. Operational Support

- Compliance and Safety: Adhering to the University's Occupational and Safety services and emergency management protocols
- Confidentiality: Maintain strict confidentiality in patients' interactions.

2.6 Staffing and resources

- Staff numbers: The PNGUoT Clinic is a 24-staff facility providing on-campus health care to students and staff, featuring a Chief Medical Officer, Health Extension Officer, and 14 nursing officers, 4 ambulance drivers, 2 janitors, and administrative personnel x2.
Most positions at the clinic are temporary, and only 7 are permanent positions. This year, 2025, none of the clinic staff were promoted to the next level or underwent any training within the university or through Morobe Provincial Health Authority programs or other agencies.

3. Challenges and Way forward

Based on general challenges in Papua New Guinea's health sector and specific institutional needs at the Papua New Guinea University of Technology

capacity building for staff faces significant hurdles. These include limited resources and infrastructure, coupled with a need for modern, specialized training and a proper medical laboratory building:

3.1 Challenges:

- Infrastructure and Resource Constraints: Similar to health institutions across PNG, the Unitech clinic likely faces shortages in up-to-date medical equipment and adequate, modern laboratory or diagnostic tools.
- No proper medical laboratory equipment to give reliable and exact medical test results according to the patient's illness.
- Limited Training Opportunities: There is a lack of continuous professional development and specialised training in management or specific health fields.
- Heavy workloads and staffing Shortages: High clinical workloads and understaffing make it difficult for staff to leave their duties for training purposes.
- Technology Gaps: The need for training in new medical technologies, digital health records, and e-learning platforms is high, but infrastructure is underdeveloped.
- Transport problems at times due to high wear and tear.

3.2 Way Forward:

- Partnership and Networking: Establishing partnerships with local industries within Lae or Papua New Guinea or overseas institutions for staff exchange programs and training opportunities.
- Specialised Training Modules: Developing in-house or tailored training for clinic staff, particularly emergency, maternal, and occupational health.
- Upgrade the clinic with proper laboratory equipment installed for reliable and fast blood results to diagnose the medical issues as early as possible.
- Reliable and fully equipped new ambulance to be on standby 24/7 within the campus for any emergencies.

SUMMARY OF DAILY OUTPATIENT ATTENDANCE

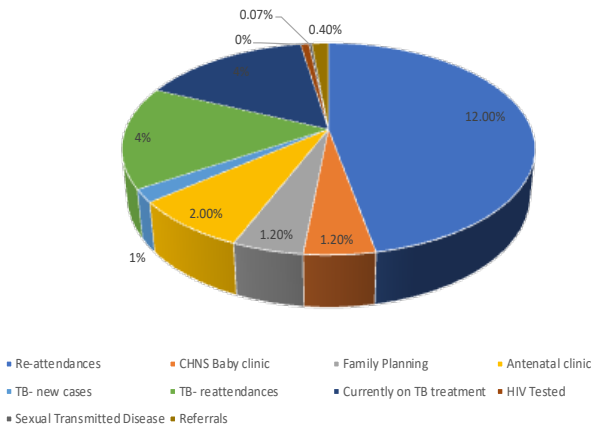


Figure 1. Showing the distribution of the daily outpatient at-

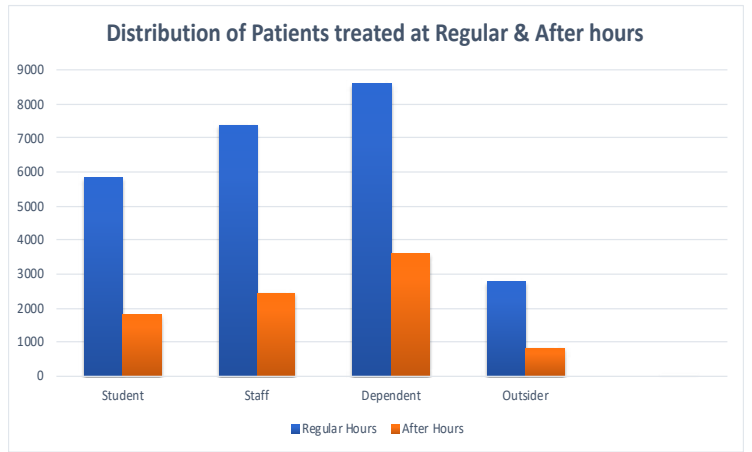


Figure 2. Showing the distribution of the category of patients being treated at regular hours and after hours at the clinic. tient attendance

Category	Bulolo University College (BUC)	Timber Forestry Training College (TFTC)
Staff	496	254
Student	300	170
Dependent	578	980
Outsiders	1040	200
Total	2,414	1,604

Summary of daily outpatient attendance at bulolo university college & timber forestry training college clinics

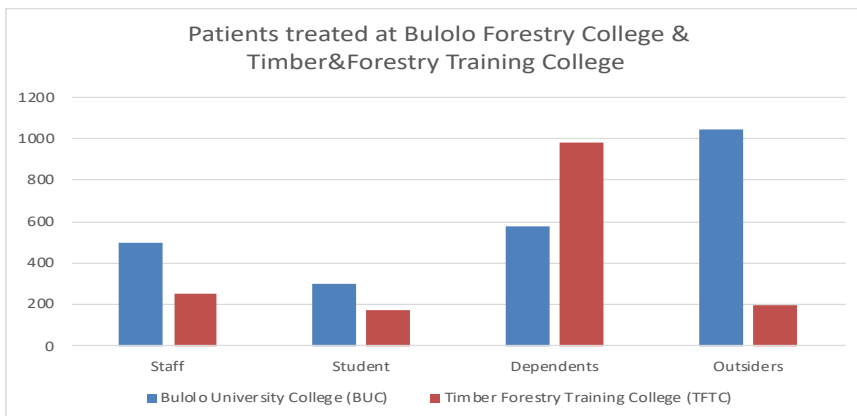


Figure 3: This column graph shows the distribution of patients treated at Bulolo University College Clinic & Timber Forestry Training College.

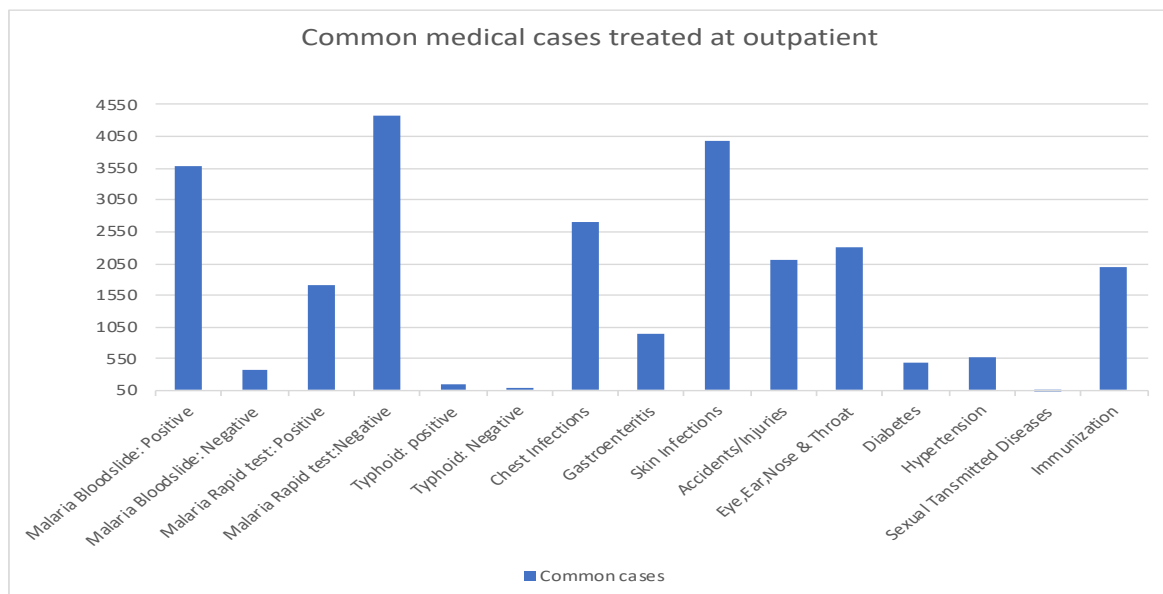


Figure 3 Shows common medical cases that are treated at the outpatient OTHER INFORMATION



Department of Open & Distance Learning

Introduction

The Papua New Guinea University of Technology (PNGUoT) externalizes its conventional academic programs through the Department of Open and Distance Learning (DODL). With this mandate, DODL is committed to providing a supportive and inclusive learning environment that empowers both faculty and learners to excel in a technologically enhanced educational setting. The Department places strong emphasis on academic excellence while expanding access to higher education through adult learning opportunities and online education. Its programs focus primarily on delivering PNGUoT's conventional courses, distance programs, and adult learning (for matriculators and upgraders) to a wider audience, enabling learners across diverse contexts to pursue quality education with flexibility and convenience.

Mission

To become a leading provider of Online and Distance-based learning programs that are prestigious, affordable, accessible, and appropriate to the PNG context.

List of Academic Programs & Enrolment

A (Online Education Programs)

School	Course	Year 1	Year 2	Year 3	Year 4	Subtotal
BS	Accountancy	149	61	20	4	234
	Applied Economics	54	23	4	2	83
	Management	93	48	3	2	146
	Business IT	51	39	4	1	95
CDS	Communication for Development	43	35	6	2	86
MCS	Applied Mathematics	36	5	1	NA	42
SLS	Property Studies	44	8	4	1	57
ACM	Construction Management	94	29	NA	NA	123
Grand Total						866

B. (Distance Program)

Program	Enrolment
BARD (Agriculture)	75
Master of RS & GIS (Survey & Land Studies)	22

C. (Adult Learning-Matriculation and

Semester	Enrolment
Semester 1	4,697
Semester 2	2,581
Total	7,278

Strategic Partnerships

- Signed an MoU with Port Moresby Technical College (POM TEC) to establish a resource centre that supports online students based in Port Moresby.
- Initiated negotiations with Star Mountain Education Foundation to set up a resource centre for online education in Tabubil, Western Province. Discussions are ongoing.
- Successfully negotiated with DHERST for online education students to be considered for the Higher Education Loan Program (HELP) and TESAS scholarships
- Signed a Memorandum of Understanding (MoU) with Warango Secondary School to extend the matriculation program to all willing and interested learners in Pomio District.

Pending Projects

- Efforts are underway to upgrade all lecture rooms into multimedia rooms to offer lectures to both online and conventional students simultaneously (hybrid learning).
- Efforts to offer Engineering courses online by 2027 are underway.

Major Challenges

- Hybrid learning, which is the most effective mode of online delivery, is very costly, and government support or external funding may be required.
- Offering Engineering courses Online requires access to virtual/simulated laboratories to provide interactive, hands-on learning experiences in a computer-based setting, allowing users to practice skills and explore theoretical concepts without needing physical equipment or materials. This is quite expensive, and government support or external funding may be required.
- For the Matriculation Program, the government is encouraging FODE to operate from public

secondary schools where DODL is currently operating. This is causing tension, for the two programs may not be effectively delivered through these schools.

Way forward

Online Education:

- Advocate for government or external support to effectively implement hybrid, enabling simultaneous teaching for both on-campus and external students.
- Advocate for provincial governments' support to establish resource centres in remote areas, offering students access to stable internet and digital learning resources.
- Expand the program internationally, reaching students beyond Papua New Guinea.
- Forge strategic partnerships with globally recognized digital learning universities and educational technology agencies.

Matriculation Program:

- Renegotiate with NDoE to allow both DODL and FODE to operate from the same learning environment (Public schools).
- Extend the DODL-Matriculation program to private secondary schools to avoid collision with FODE in public secondary schools.
- Encourage Franchise centres to increase accessibility and reach.



A Picture of Port Moseby Online Students Undertaking Exams at Gerehu Secondary DODL Centre



Department of Information and Communication Technology Services (ICTS)

Introduction

The ICT Services (ICTS) Department continues to play a central role in supporting the Papua New Guinea University of Technology (PNGUoT) as it transitions into a more digitally driven academic and research institution.

In 2025, ICTS focused on strengthening infrastructure resilience, modernizing core systems, expanding cybersecurity protections, and scaling up operations of the .(dot) PG country code Top-Level Domain (ccTLD). These initiatives directly contributed to enhanced teaching, learning, and research, while also positioning the University as a national leader in ICT governance.

Vision Statement

To be a leading enabler of digital transformation in higher education, empowering teaching, learning, research, and administration through innovative, secure, and sustainable ICT solutions.

Mission Statement

To deliver innovative, reliable, and secure ICT services that enhance academic excellence, research, and operational efficiency while advancing PNGUoT's digital transformation agenda.

Strategic Objectives

During 2025, ICTS aligned its operations with the Uni-

versity's five-year Digital Transformation Roadmap (2025–2030), focusing on:

- Expanding high-speed, reliable, and secure digital infrastructure.
- Enhancing cybersecurity readiness across campus and .PG operations.
- Supporting blended and online learning through improved digital platforms.
- Professionalizing technical support services.
- Growing the .PG namespace as a trusted national digital asset.
- Building internal ICT capacity through staff development and partnerships.

Infrastructure and Network Upgrades

- **WiFi6E Expansion:**
Coverage now includes 95% of academic blocks and all student dormitories.

Data Center Enhancements:

- Deployment of redundant power and cooling systems.
- Introduction of hybrid cloud architecture for backup and continuity off-sites.

- **Bandwidth Growth:**
International internet capacity increased from 80Mbps to 545Gbps for Main Campus Link (2023), meeting growing research and learning needs.
 - Kundiawa SUSU Campus 15Mbps
 - POM Campus 10Mbps
 - Bulolo College 20Mbps
 - Timber & Forestry Training College 20Mbps
- **Fiber Network Upgrade:**
Successful completion of a new fiber network from 1Gbps to 10Gbps. Thus, improved network speed and reliability across all campuses and facilities. Phase 2 to start in 2026, connecting all the staff housing areas.
- **Website Upgrade:**
Upgraded Website with domain changed to www.pnguot.ac.pg
- **Internet Payment Gateway:**
Work in progress to implement IPG
- **Core Switches Upgrade:**
Core Switches upgrade from 1Gb to 10Gb
- **Hybrid Smart Classroom:**
Implementation of Hybrid Smart Class starting at SCDS

ICT Services to the University Community

- **Learning Management System (Moodle):**
Upgraded to the latest version with mobile-first features and integrated proctoring tools.
- **University Information System (UniTech Portal):**
Expanded to cover HR, payroll, and procurement.
- **Collaboration Tools:**
Google Space and licensed Zoom
- **ICTS Helpdesk:**
 - 5,300 tickets will be resolved in 2025 (up 18% from 2024).
 - Average resolution time improved to 1.9 working days.
 - Onboarding of the GE tracker

Cybersecurity and Compliance

- Campus-wide rollout of Multi-Factor Authentication (MFA).
- Implemented DNS Security Extensions (DNS-SEC) for .PG ccTLD.

- Conducted two major cybersecurity drills in partnership with CERT-PNG.
- Developed and adopted PNGUoT ICT Security Policy 2025, a first for the University.

Human Resource Development

- **Staff Training:**
 - 6 ICT staff completed professional certifications (CCNA, Azure, CISSP).
 - Online Training as and when required
- **Internship Program:**
15 students (Computer Science, IT, and EEE) engaged in hands-on ICTS projects.
- **Recruitment:**
Appointment of a new Website Designer
- **New Staff Required:**
Staff required to fill in the vacant positions particularly Cybersecurity, Network and Support.

.PG Domain Operations

The ICTS Department continued its stewardship of the .PG ccTLD with strong growth and security improvements.

Achievements in 2025

- Registrations Growth: Total .PG domains reached 2,380, an increase of 20% over 2024.
- DNSSEC Deployment: Successfully deployed DNS-SEC, enhancing trust in the .PG namespace.
- Automation: Expanded .PG Registry Portal with on-line payment gateway and self-service dashboard.
- International Engagement: PNGUoT ICTS formally joined the APTLD (Asia Pacific Top-Level Domain Association) 87 meeting via Online in September 2025. Pac IGF in Samoa, ICANN84 in Dublin.
- Revenue Growth: .PG operations contributed PGK 620,000, representing 16% annual growth.

Challenges

- Growing number of phishing and spam attempts targeting .PG domains.
- Limited national awareness of the value of a PNG-specific domain.
- Need for stronger collaboration with ISPs for faster adoption.

Outlook for 2026

- Launch national “.PG Digital Identity Campaign” with NICTA and ICT industry partners.
- Expand registrar partnerships for wider domain availability.
- Explore EAI (Email Address Internationalization) to allow .PG email in Tok Pisin and local languages.

Financial Overview

- ICTS Operating Budget 2025: PGK 7.2 million.
- Major Expenditures:
 - Network infrastructure & bandwidth: 38%
 - Data center modernization: 27%
 - .PG operations: 15%
 - Software licensing & subscriptions: 12%
 - Training & HR development: 8%
- Revenue from .PG operations: PGK 620,000 (up from PGK 480,000 in 2024).

Challenges and Risks

- Rising internet costs remain a heavy burden on University finances.
- Cybersecurity threats (phishing, ransomware, and DDoS) are increasing.
- Retaining skilled ICT professionals amid competitive private sector offers.
- Expanding ICT services to meet the growing expectations of staff and students.
- Shortage of qualified specialist staff, particularly in Software Development and Cybersecurity
- Lack of Accommodation for ICT Staff
- Unreliable Power on campus

Conclusion

- The ICTS Department delivered significant progress in 2025, modernizing digital infrastructure, improving service delivery, and strengthening PNG’s national internet identity through .PG operations. These achievements reinforce PNGUoT’s role not only as an academic institution but also as a steward of digital development for the country.
- Looking ahead, ICTS will drive the University’s Digital Transformation Roadmap 2025–2030, ensuring PNGUoT remains at the forefront of digital innovation and national ICT leadership.



ICTS Staff 50th Independence Uniform



10Gbps Fibre-optic Cabling



At ICANN84 AGM with Prof Pablo (.PR)



CDS Smart Classroom Demo

Matheson Library

Executive Summary

The 2025 reporting period was marked by significant developments across library operations, infrastructure, and digital systems. The focus was on modernizing library services, enhancing user engagement, and building capacity for future growth. A mix of completed projects, ongoing initiatives, and strategic planning defined the year's efforts.

Category	This Period (2025)	Previous Period (2024)	% Change
Total Visits (Foot Traffic)	32489	9000	260.99%
Online Database Access	Past Exam Papers: 900 EBSCO Total Accessed 1246 KNOVEL Total Recourse View 1052	Past Exam Papers: 1305 EBSCO Total Accessed 177 NIL	-31.03%. 603.5%. New Database
Borrowed Items	555	273	101.82%

Projects

- Knovel Database Successfully subscribed (Completed)
- Matheson Digital Library Implemented (Completed)
- Discovery Platform Implemented (Completed)
- Negotiated with the Office of Library and Achieves and successfully signed the MoU (Completed)
- Library Retrofit second phase interior design requirements (Completed)
- Koha in-house training (ongoing)
- ISBN and eISSN allocation web application (2025-2026)
- eReporting systems for Reader Services, Cataloguing, Digitization, Acquisitions and Collection Development (2025-2026).
- Library Major Stock Taking (2025-2026)
- Development of Library Website (ongoing)
- Library Management System Upgrade (ongoing)

Partnerships

- Office of Library and Achieves MoU signing for KOHA Integrated Library System Implementation.
- OTML – KOHA Integrated Library System Implementation,



- Branch Colleges libraries (TFTC KOHA ILS Library systems integrations),
- The British Library Document Supply Service (BLDSS)
- The National Library of Australia
- Post Graduate School PNGUoT
- Foreign embassies (USA, Japan, India).
- Creation of a branch library - Kobal's Library (School of Civil Engineering).
- Justice Department KOHA Integrated Library System Implementation.

Sectional Reports

Reader Services

- Conducted Library Orientation (13-14/02/2025 at Matheson Library. 312 students attended).
- Conduct Seminars (2 Seminars conducted for library staff, 1 postgraduate seminar)
- Conducted Knovel Database Marketing Seminars with 5 different schools.
- Visitors Count (32489 users captured on the visitors count system)
- Total Issuing of Books (555 Items issued)
- Total Fine Charges (K1116.50)

Cataloguing

The table below is a summary of Actions (Add, Delete, and Modification of records).

Records Added		Records Deleted	Records Modified
Bib records	Item Records		
185,414	113,248	98426	42
0	0	0	43
83	0	0	11
0	0	0	8
0	0	0	3
45	0	0	77
153	0	361	2721
246	0	108	34,628
0	0	0	45
4	0	6	12,822
0	0	0	482
185,945	113,248	98,901	50,882

Interlibrary Loan (ILL) and Document Delivery

- Requests received and processed (Local & External) 94 requests processed in the year 2025
- Collaborative agreements
 - The British Library Document Supply Service (BLDSS)
 - The National Library of Australia
 - Post Graduate School PNGUoT

Digitization Services

Digitized Documents Uploaded Digitized Documents

Collection	Tally
Thesis (books)	1
	7
ILL request (books)	5
Unitech Publications (pamphlets)	5
Special Reserve (book)	1
Rare Collection (book)	1
PNG Collection (book)	2
Past Exam Papers	4
	8
Newspapers	2
Collection	Tally
Past Exam Papers (Undergraduate)	1
	1
	6
Past Exam Papers (Non-school leavers)	4
	8
Newspapers	2

Past Exam Papers (Undergraduate) Queries

Category	Total	Request Mode
Students	300	By student email addresses
Non-students	600	By private email addresses

Collection Development

Library Collections

Figures generated from Koha ILS

Main Collection (MN): 55, 553	Papua New Guinea Collection
Special Reserve (SR): 2,567	PNG Reference (PR): 2,782
Reference(R): 5,556	PNG Collection (P): 3,088
Vertical File (VF): 8,721	PNG Vertical File (PVF): 2,298
Fiction(F): 1,562	PNG Rare Collection (RC): 1,089
Serials (Ser): 51	PNG Serials (PS): 42
Audio Visual (AV): 408	AV PNG: 82
American Corner (AMC): 126	

Departmental/Faculty Request Item Requests

- Number of book requests received: 6 requests
- Number of requests fulfilled/not fulfilled: 6 requests not fulfilled
- Requests by department: School of Business Studies Applied Physics

Donations Received

The library received items from two donors this year.

- Donation from The Life in Developed Countries Library - Late Larry Osak's collection of items. Total donated items include:
 - Book Titles: 700
 - Hard Drives: 140
 - DVD' & VHS: 600
 - Audio Recorded CD's: 400
- Donation of two books by Miss. Xema Bannick, a second-year BBAE student. She donated her father's Bachelor's and Master's of Agriculture thesis.

Special Reserve

A total of 868 items were removed from the Special Reserve Collection and reassigned to other collections where necessary.

Collection Analysis by Subject

Conducted collection analysis for three schools to identify gaps and plan future acquisitions. The schools are Civil, Electrical & Communications Engineering, and Mechanical Engineering.

Acquisitions

2024 report

- Total Items (Books) Acquired: 490
- Expenditure: K9,059.00
- Credits: AU\$4,259.00 (equivalent to K10,352.46, pending payment)
- Total Expected Expenditure: K19,411.51

In 2025 library subscribed to Knovel Database US\$ 25772 (equivalent to K109121.13).

Budget Constraints: Limited budgets have necessitated difficult decisions about new book purchases, reducing our acquisition capabilities.

ICT and Library Systems

- System upgrades or issues (ongoing)
- Usage of library management software (ongoing)
- Innovations and digital services (ongoing)
- Koha ILS training 3 done in-house

Staff Development and HR

- Ms Julie Tum and Mrs Pauline Ragat on Short Course 3 months study in UPNG Library School.
- Ms Darusila Ali completed her study – UPNG 2025. Will graduate with a bachelor's in Information Communication Science in 2026.
- 9 positions were sent to HR for advertising. The University Librarian position was advertised.

Challenges and Issues

Matheson Library continued to navigate a dynamic academic environment in 2025 while striving to deliver high-quality services to students, faculty, and researchers. However, several operational challenges have impacted efficiency and pace of progress. These included:

- Better security systems for book protection
- Limited digital literacy among some staff members,
- Delays in project completion
- Need for ongoing training

Plans

Planned Initiatives for the Future

Matheson Library identified several strategic initiatives to further enhance library services and operational efficiency in the upcoming period:

1. Expansion of Digital Services
2. Koha System Training
3. Library Outreach and Engagement
4. Library Marketing and Communication
5. Upgrading Library Facilities
6. Create partnerships with external institutions and organizations



Security Operations

Introduction

This report covers the current manpower, training, retirement, death, capability development initiatives, security operational equipment, security and fire operations, summary of incidents, arrest, challenges, and recommendations.

Current Manpower

After recruiting an additional 19 officers following the Senior Executive Management Team's (SEMT) approval for the recruitment of 20 additional officers as a result of the harassment of a young female on the campus, we now have a total of one hundred and two (102) officers. Out of the one hundred and two officers, fifty-seven (57) of them are permanent officers, while forty-five (45) of them are temporary officers.

Retirement

Out of the fifty-seven (57) permanent officers, six of them were identified for retirement due to age factors and medical/physical conditions. Their employment will ceased as of 31st December 2025.

Death

Out of the six officers identified for retirement, Mr. Tipo Abi passed away a month before his retirement date.

Training

Four security officers attended a firefighter training in Port Moresby, , co-funded by Papua New Guinea National Fire Services. They have completed their training successfully and are back on the campus performing fire duties. Another two officers will undertake administrative training with SILAG in 2026.

Capability development initiatives

For effective and efficient service provision, the current sixty-man establishment was restructured and increased to one hundred and forty-four positions. The new or restructured establishment will cater for: Security Head Quarter,

- Security operational unit,
- Fire unit,
- Dog unit, and
- MOU Police unit.

Security Operational Equipment

Radio Communication Equipment

The university has purchased five new radios and 32 hand-held radios from TE PNG. These equipment were installed at the main Taraka campus, Bulolo campus, and Bumbu campus, respectively, for security operations.

Vehicles

The university has two old security vehicles for security operations.

Torches

The university has purchased ten (10) new torches for security operations. However, one torch was stolen from the duty officer at area 5 by criminals when they held him up and stole money and properties from Margaret's canteen.

Security and Fire Operations

Security operations are pretty much based on the availability of manpower. The table below highlights the deployment of current manpower during operations.

Table 1: The deployment plan for each

S/NO	LOCATIONS	DAILY STAFF DEPLOYMENT PLAN
	Security Head Office	3
1	Main Operation Centre	2/Shift
2	Drivers	2/Shift
3	Main Gate	3/Shift
4	Second Gate	1/Shift
5	Sogeri Area	1/Shift
6	Markham Area	1/Shift
7	Registrar's Res	1/Shift
8	VC's Res.	1/Shift
9	Female Lodge	1/Shift
10	International Village	1/Shift
11	Academic/ATM Area	2/Shift
12	Transport Pool	1/Shift
13	Male Lodges	2/Shift
14	UCRC	1/Shift
15	UARC	1/Shift
16	DVC's Res.	1/Shift
17	ED HR Res.	1/Shift
18	Projects	1/Shift
19	MOU Police	1/Shift
20	Fire	1/Shift
	TOTAL	29

Incident/Crime Reports and Statistics

Types of incident/crime occurred and its frequencies are compiled under different categories as follows:

Alcohol and drug related incidents

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Drunk and fighting at the gate and lodges	I	1
2	Drunk and disorderly/nuisance/swearing	IIII IIII III	13
3	Drunk and causing noise pollution	IIII III	8
4	Drunk and causing destruction to properties	I	1
5	Production of H/Brew	I	1
6	Drug Abuse	I	1
	Total		25

Stealing

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Stealing laptops	III	3
2	Stealing phone	II	2
3	Stealing Animals	II	2
4	Solar Panels	IIII I	6
5	Elementary School properties	II	2
	Total		15

Break Enter and Hold Up

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Break and enter and steal	IIII I	6
2	Beak and enter into staff houses	II	2
3	Beak and enter into offices	II	2
4	Hold Up	II	2
5	Attempt hold up	IIII I	6
	Total		18

Tempering of Security fence

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Tempering of iron roof sheet fence	IIII IIII	8
2	Tempering of palisade stud	III	3
4	Cutting of wire fence	IIII IIII	10
5	Digging up fence lines (Foxholes)	IIII	4
	Total		25

Fighting/Argument

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Student verses Outsiders	III	3
2	Student verses student	III	3
5	Student verses staff	I	1
6	Staff verses staff	III	3
7	Staff verses dependents	II	2
8	Husband verses wife	III	3
	Total		15

Vandalism and Fire

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Destruction of property	IIII IIII	9
2	Fire	IIII I	6
	Total		15

Traffic Offences

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Motor Vehicle Accidents	IIII III	8
2	Misuse of University vehicles	I	1
	Total		9

Sexual Offence

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Sexual harassment	II	2
2	Adultery	I	1
3	Rape	I	1
	Total		4

Misuse of university house/office

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Miss Use of University house/office	II	2
	Total		2

Threats

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	External threats from settlements	I	1
2	Internal threats staff/students/dependents	III	3
	Total		4

Illegal entering of opposite sex hall of residence

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Male entering female lodge		0
2	Female entering male lodge	I	1
	Total		1

Breach of Betel-nut and smoke ban incidents

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Spot fine for chewing betel- nut	II	2
2	Spot fine for selling of betel – nut		
	Total		2

Arrest of suspects

S/NO	TYPES OF INCIDENTS	FREQUENCIES	TOTAL
1	Students arrested for Alcohol and Drug abuse	IIII IIII IIII IIII	18
2	Public arrested for Break and Enter/Stealing	IIII IIII IIII IIII	15
	Total		33

Summary of incidents/crimes

Different categories of incidents/crimes occurred on the campus from January 2024 to November 2024. The summary of these incidents/crimes is presented below.

- Alcohol and Drug-related offences = 25
- Stealing = 15
- Break Enter and Hold Up = 18
- Tempering of Security fence = 25
- Fighting/Argument = 15
- Vandalism and fire = 15
- Traffic Offences = 9
- Sexual offences = 4
- Misuse of university house/office = 2
- Threats = 4
- Illegal entering of opposite sex hall of residence = 1
- Breach of the betel-nut and smoke ban incidents = 2
- Arrest made = 33

Recommendations

Based on the incidences and their frequencies , it is strongly recommended that the following actions must be taken to address the issues highlighted in this report.

1. A total alcohol ban on the campus must be imposed.
2. Do a complete overhaul on the entire security fence and reinforce it with a cement slab underneath and razor wire on top.
3. Increase the security manpower to provide complete security coverage on the campus.
4. Logistics required are to be provided for effective service delivery.



Student Support and Facilities Centre (SS&FC)

Introduction

Brief overview of the section, including vision and mission.

The Student Support and Facilities Centre (SS&FC) is one of the oldest support sections of this university. It came into existence since the university was established over 50 years ago. In 2025, from January to November, the Division conducted many activities and encountered difficulties, but fared well and ended the year on a good note.

Purpose of the Existence of SS&F:

- To cater for the social welfare needs of the students at all levels by providing, maintaining, and managing facilities and support services relating to the students' welfare.
- Students' Support and Facilities Services are provided and managed under the respective sub-sections briefly described below.

Alignment with the university's Strategic Plan

- Student Support and Facilities play a pivotal role that is aligned with the University's 2025-2029 Strategic Plan. The following relevant pillars include:

	Strategic Themes (Pillars)	Objectives	Key Performance Indicators (Measures)	Initiatives
1.	ACADEMIC EXCELLENCE			
1.2	High demand programs are meeting Industry requirements	Increase Graduate Employability through Career Service	i. Career Services in SS&F established	i. Appointment of Career Services Coordinator. ii. Installation of SOP for CSU iii. Activity Plans for 2025 drawn.
3.	STRATEGIC PARTNERING			
3.2	A Smart Campus Promoting Inclusivity	Create Support programs within GEDSI	i. Database/Records for Special Needs installed ii. GEDSI related activities, like awareness and therapy are running	i. All records/database for disabilities & disadvantaged are in place ii. Activity Plans for awareness and engagements: student body iii. Active involvement in GEDSI iv. Students with disabilities are supported & assisted accordingly
3.8	Active Collaboration with Overseas Universities and Bi/Multilateral organizations	Improved students' Social welfare support services and facilities	i. Students support services are readily available ii. Students support facilities are available	i. Identify all the necessary welfare & recreational support facilities and budgetize them.
4.	OPERATIONAL EXCELLENCE			
4.11	Modernized Study and Living Environment	i. All student oriented recreational facilities and social enriching programs are available on campus.	i. Redevelopment program for modernizing the student dormitories planned	i. All existing student dormitories renovated and new facilities built

Core functions and activities

We perform our roles in two basic areas: Students' Facilities and Students' Support.

2.1 STUDENT FACILITIES:

Under the Student Facilities, we manage and have custody over the following facilities.

All student dormitories & Halls of Residence owned by PNGUoT : we allocate rooms and do the maintenance and upkeep through a contractor, as well as our maintenance section. At the end of each academic year, we facilitate student clearances from the campus, including transport arrangements for drop-off at the airport. These are ongoing activities that we engage in every academic year.

SUMMARY OF DORMITORIES AND BED

Facility Owner	Bed Spaces	No. of Dorms
PNG Unitech	Male: 1239	39
	Female: 506	09
SDA College	Male: 76	1
	Female: 76	1
Catholic College	Male ONLY: 25	01
AOG Okari Campus	Male: 100	01
	Female: 100	01
TOTAL	2122 (1440 MALES + 682 FEMALES)	53

Students' Mess: We grant students access to the Mess through room allocation and TAFs. We maintain surveillance and order in the Mess and ensure the Catering staff prepare healthy meals. The Mess is managed by Unitech Enterprises Limited (UEL).

- Sporting facilities & Playing Fields: we monitor and manage playing fields usage and venue hire for various sporting codes.
- Christian Center (CC/Chapel): manage and schedule interdenominational fellowships and charge a fee for their usage.
- Christian Center is open for both staff and students' spiritual wellbeing and development.

Graduation

Graduation is one of the annual activities we participate in. This year's Graduation (57th Graduation) was held at the Sir Ignatius Kilage Indoor Stadium on Friday, 11th of April, 2025, for the first time. 794 undergraduate students in various disciplines were conferred degrees. On that same occasion, 54 postgraduate degrees in different disciplines were also conferred.

STUDENT SUPPORT SERVICES:

Conducting Awareness and Engagements with Residential Students

- Team SS&F, the PNGUoT Medical team, and the Security personnel did one round of Awareness on students' behavior and Health issues at all the clustered dormitories

- Team SS&F also did awareness on the same issues at AOG Okari campus, BUC, and UARC.

Counselling Services and Case Summary

There has been an increase in the number of counselling cases in 2025 because of more awareness of this support service.

- Counselling service alone was provided to 104 students from the Female counsellor while 91 students for the Male Counsellor of both genders in 2025.

Hausman Talk Series

With the primary aim of causing behavioral changes in our PNGUoT students, SS&F is hosting a series of talks called the "HAUSMAN TALK series," which are inspirational and motivational. SS&F has invited outstanding/successful graduates of PNGUoT, UPNG, and DWU who are excelling in life.

PNGUoT Students Disciplinary Council (USDC) Cases

Given below is a summary of certain disciplinary cases that were decided by the USDC in six of its meetings so far this year.

SUMMARY

- Total meetings conducted in 2025 is six.
- Total students suspended in 2025 Academic Year is 13 (All Male Students).
- Total cases deliberated in 2025 is 30 cases, ie, 10 (Sem 1) and 20 (Sem 2).
- All cases of appeal against the USDC suspension decision have been upheld.

Staffing and resources

Staff numbers (admin, new staff, promotions, or training)

- Total Staff strength is 28
- 2x Deceased Staff: in June 2025: SAR Facilities late Martha Bonga ; and Matron of female students, Late Ms. Vincencia Soru on 02/12/2025)
- Composition of Staff includes 2 Contract, 09 permanent, and 16 Casuals
- Two SS&F divisional vehicles: ZSU 943 (Mazda BT-50) & ZSU 868 (Ford Ranger) open back.

Capacity building (staff training, professional development)

- Director SS&F underwent a 1-month Counselling Training at Griffith University, Brisbane, supported by Australia Awards, from 20th October – 14th November 2025.

Project Highlights

Fig 1: The Voice Inc Office Container Opening and MOU signing.

Notable projects/activities completed

- Procured and completed Container office setup of The Voice Inc Centre for Learning (CfL)
- MOA signed between PNGDF and PNGUoT to conduct annual Unitech Military Boot Camp (UMBC) training for students
- Revised Student Rule Book finalized
- Sports Policy vetted

New projects/activities initiated.

- The Voice Incorporated (TVI) and PNGUoT signed an MOU for leadership training in 2026.
- Provision of modified accommodation for 1st year PNGUoT student living with special needs Gemmy Pyaki
- Liaised and secured sponsorship with Australian Awards (AA) for special needs student Gemmy Pyaki and his caregiver Sandrick Pambao
- Completion of Christian Center Facilities: Still seeking funds for completion

Industry Partnerships – key collaborations with the private sector/government/NGO

- Trainee Student attachment – ie, Brown Technical School, Finschhafen District
- Angau Physiotherapy Sessions for 1st PLWD student Gemmy Pyaki
- Morobe Disability Centre – advice & technical support to Gemmy Pyaki & his new wheel chair
- PNG Sports Foundation – Gym Floor Plan and Setup
- LCA Reserve Police & Lae Metro – Graduation preparation at Indoor Stadium & Security
- Water PNG – Pump out sewerage team at Indoor Stadium
- AOG Okari Conference Centre – provision of accommodation & meals for Self-Sponsored (SS) students

Community impact projects – outreach, awareness, community initiatives

- Family Health Association (FHA) Youth Awareness Programs, ORWC
- BSP Lite (Life) Insurance for SS&FC staff
- ADRA – Adventist Development Relief Agency

Key highlights of the year

Unitech Military Boot Camp (UMBC)

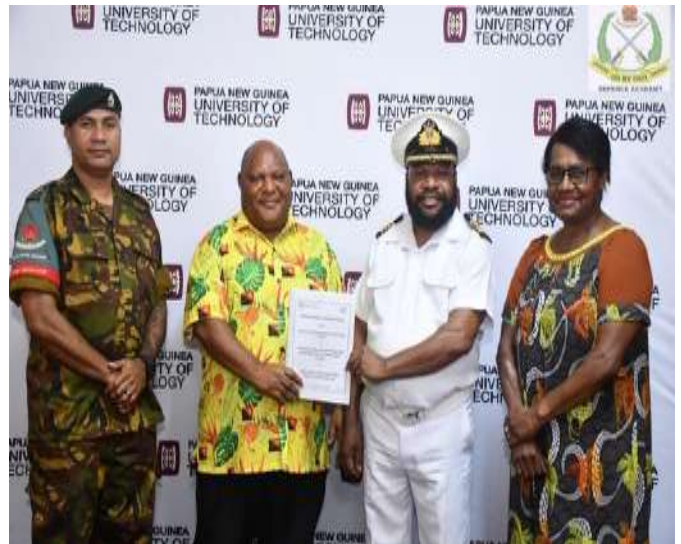
- SS&F coordinated and facilitated a Military Bootcamp during the first semester break, from the 10th to the 14th of June, 2025, at Igam Barracks.

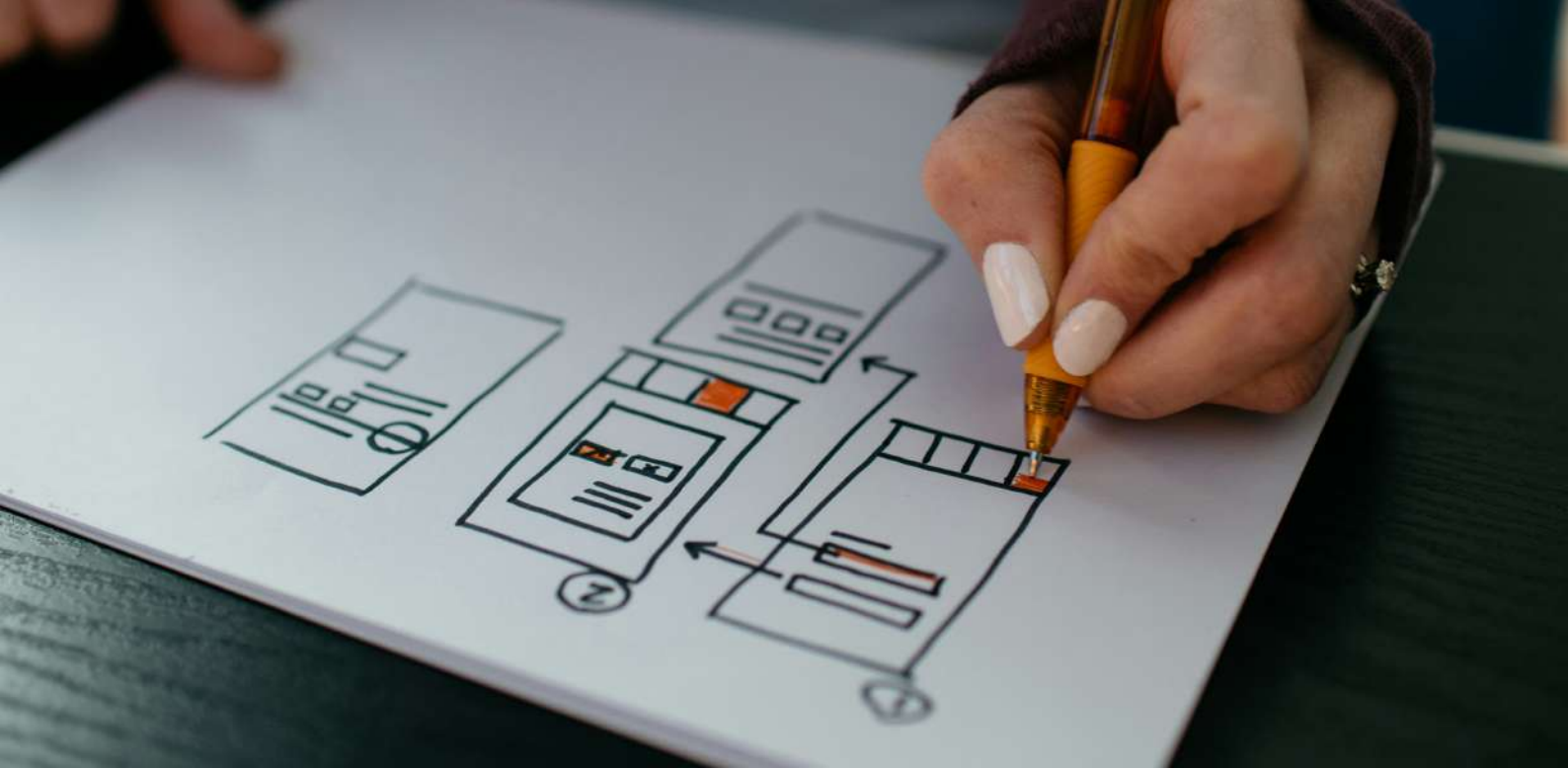
• Fig 2: Lecture Session with Captain Jessy Boino at Officers Training Wing (OTW), JFA – Igam Barracks.

• Fig 3: Chief Instructor Lt. Col Deleni Rida, DVC Professor Garry Sali, JFA Commandant Major Hannema (Navy), and Registrar Mrs. Veronica Thomas during the MOA signing.

Vice Chancellors (VC) Cup

The Vice-Chancellors Cup Rugby League Challenge (VC Cup) is held biannually in odd calendar years. This year, the prestigious VC Cup Challenge was hosted by the PNG University of Technology (PNGUoT) and all games were played at the University Oval (Taraka Campus) – Lae from June 24th – 28th, 2025.





Teaching & Learning Methods Unit

Introduction

The Teaching & Learning Methods Unit (TLMU) had been created to support the vision of PNGUOT as the leading innovative, entrepreneurial, and student-centred University, contributing to a knowledge-based society in Papua New Guinea and the South Pacific. TLMU has been promoting the mission of PNGUoT by offering research and outreach activities of high quality by stimulating critical evaluation of scientific and technological knowledge.

According to the PNGUoT Strategic Plan (2025 –2029) TLMU has continuously improved in its functions by: continuing to support the development and implementation of policies and procedures for the paperwork associated with lecture plans, timetables, teaching allocations, student evaluations of teaching (SOET), and academic quality assurance (AQAT) processes. TLMU also provides educational support to both staff and students and maintains training supporting the transition from manual to automated electronic learning management systems, such as Google Classroom. In addition to streamlining these processes, TLMU has expanded in-house training by outsourcing our soft skills training programs, focusing on this area to create a sustainable training program for all university employees.

VISION

Embrace the culture of high ethical standards, professionalism, diversity and inclusivity, innovation and initiatives, pride and passion, and academic excellence in higher education by promoting continuous improvement and integration of technology and innovation in teaching, learning, and training. This vision gives shape and direction to the organization's future. It helps set the organization's goals, shows where it wants to go, and what it will be like when it gets there.

MISSION

Pursue dynamic and transformative educational experiences, opportunities, and strategies that support life-long learning

This mission represents the fundamental reason for the organization's existence. TLMU, as a unit, may not reach its ultimate mission or purpose, but it will achieve many visions along the way.

II. Staffing

The current staffing for TLMU consists of; Director - Immaculate Azabo (PhD), Training Officer/Lecturer - Ms. Dora Jimela Kialo, ICT Officer - Mr. Ismael Dono, and Ms Mary Poning Aisi, Administration Officer.

Training Officer Ms. Dora Jimela Kialo has just completed and submitted her PHD thesis in October 2025 awaiting external assessment before graduation in April 2026 .

III. Resources

TLMU has three new air conditioners and one new printer with copying, scanning, and printing capabilities, along with one old one. We have 13 training Dell laptops, five Desktop workstations, a digital projector, and four UPS units. TLMU also has a bottled water dispenser and an urn for hot water provision for meetings, training, mentoring, and PG classes in our conference room, equipped with a projector and a podium.

IV. Undergraduate and Postgraduate Support
In cooperation with the School of Communication and Development Studies (SCDS), TLMU continues to provide academic support to both undergraduate and postgraduate students of PNGUoT through the Academic Resource Centre (ARC) for weekly lunch-hour face-to-face lectures on "soft skills" and job-ready topics. We also provide supervision of internal and external industrial training (IIT) for undergraduate students as well as for Technical and Vocational Education & Training (TVET) students of Morobe Province in partnership with the Career Development Office at PNGUoT. We also serve as the Student Online Evaluation of Teaching (SOET) and Academic Quality Assurance Team (AQAT) Secretariat for the university's 13 academic schools.

TLMU also provides academic support to postgraduate students in preparation for theses

(via instruction on the use of TURNITIN), through face-to-face training and Q&A academic advice weblogs. TLMU needs higher degree research support assistance licensed software such as NVivo and OriginLab.

V. Academics Program in Postgraduate Certificate in Student-Centred Teaching (PGCSCT)

TLMU provides both curricula pedagogy, and software/hardware ICT training to academic staff (via the annual Postgraduate Course in Student-Centered Teaching (PGCSCT) offer, provided in cooperation with the SCDS). This course was expanded into a one-year pedagogical program meeting NQF Level 8 and consists of the following modules: CD 511: LMS and Flipped Classroom; CD 512: Project/Problem-Based Learning, CD 513: International Trends in Higher Education Teaching and Learning, and CD 514: Capstone Project. This year, the Lecturers were Prof Eric Gilder, Dr. Immaculate Azabo, Mr. Moripi, and the Training Officer Dora Kialo, who was working remotely. A total of fifteen (15) academic staff are expected to complete subject requirements for the course:

(VI) University Debate support

TLMU continues to provide support for the University Debate Team both online and on-site. This includes ICT support and avenues for intervarsity virtual debates, as well as a debate judge support service every year since its inception in 2022.

VII. In-House Training & Externalization

TLMU has been part and parcel of PNGUoT's externalization process. We provide academic support online to both the Bulolo and the SUSU campuses. Furthermore, we have also assisted the University and the International Telecommunications Union (ITU) with online training to extend our soft skills courses and expertise. TLMU is a partner with ITU to run Training programs in the East and West Sepik Provinces, besides other global training networks, to assist farmers and principals of schools utilizing our resources with their physical infrastructure resource centers supporting rural entrepreneurship investment and trade with support from the United Nations FAO and ILO, assisted by Herman Kunsei as the Country Manager of ITU and NTU integration.

Soft Skills & Academic/Non-Academic Courses Training will continue in both conventional and online modes from 2026 to 2029. We look forward to developing offers in specific areas, such as webinar presenters in partnership with the School of ECE- Mr. Herman Kunsei overseeing global training delivery, as part of PNGUoT's global training partnership with ITU—as well as academic writing and career advising for students and staff, in progress with the School of Communication & Development Studies.

We also provide staff training in both conventional and online modes through the Career Development Office of PNGUoT. This year, we had over 25 in-house training fortnightlies, showing an increase in the number of training from the previous year, 2024. Promoting professional development through training has enabled both teaching and non-teaching staff to progress nicely through the academic calendar, while remaining motivated, optimistic, and confident

VIII. Research Publications and Presentations

In 2022, 2023, and 2024, TLMU staff participated in several research publications and Curriculum Design projects

Dora Jimela Kialo also published a paper with Aisoli- Orake et al titled Creating Sustainable Networks to Enhance Women's Participation in Higher Education in Papua New Guinea in February 2022 and a book chapter with Gasson Susan, Aisoli-Orake Rachel et al. titled Confident Supervisors: Creating Independent Research on 15 Dec 2023. She has also published Effectiveness of Google Classroom Learning Management System Autoethnography in November 2023 and The Making of a New Teacher Education Instructor in Papua New Guinea Teacher in Teacher Education Pedagogy in April 2020.

IX. Cost-saving measures

Certificate printing and binding are now being done at TLMU in order to cut costs at the university's Printery.

X Current and Future Developing Initiatives

While supporting PNGUoT's strategic aspiration of differentiating itself by creating an integrated, customized, and continuous experience throughout the learner lifecycle, TLMU held several workshops, including the current Project Proposal Writing Workshop (see photo attachments) held successfully between 13th and 17th October 2025 in collaboration with the Postgraduate School for academics to support them to cope with the demands of university life. Topics such as academic survival in PNGUoT, Digital Citizenship for young adults, and job search strategies were covered, among others.

Challenges and Way Forward

- The Teaching & Learning Methods Unit's budget this year was approximately PGK52,000.00 for training provision and operational costs, including internal industrial training support expenses and university-related business travel. However, the annual budget is not enough to keep us going until the end of November 2025.
- TLMU needs expansion on top of the Matheson Library Garage if there is any possibility.

XIV. Concluding Remarks

TLMU aspires to promote excellence, creativity, and inquiry in education within and beyond PNGUoT. In this spirit, we work with individuals, academic departments, and academic support units to develop and promote an institutional culture that prioritizes meaningful learning and effective teaching to build capacity within our learning community. Through the passionate application of science, technology, and innovation, the TLMU helps the PNGUoT family in promoting experiential learning in the real world. We are pleased to help the institution develop top-notch technocrats for the real world. Together, we are sure we can turn self-improvement into a way of life in 2025 and beyond!

Successful Grant Project Proposal Writing Workshop—Photos at Huon Gulf Hotel





Agriculture Farm

Introduction

The Agriculture Farm is a section of the School of Agriculture which functions as a Field Laboratory where it facilitates practical teaching, demonstration, research, and Trials for both undergraduate, postgraduates, and scholarly research. Farms also generate income for the School of Agriculture through livestock and crop products. Farm development and practices have remodeled smart farming and sustainable operations, where other government institutions, community-based organizations, community agricultural cooperatives, and or individual farmers apply farming technology, farming management, and sustainable farming concepts.

There were continuous renovations, improvements, and developments to the Farm infrastructure achieved, and some are still in progress to maximize the Farm's potential.

Vision

Promote Academic Teaching and Research Excellence and Maximization of Farm Income

Mission

Recapitalize and develop the Farm to realize Excellent Academic Teaching and Research, and increase the profitability of the Farm in fulfilling the PNGUoT Strategic Plan 2025-2029 in generating income that will support university operations.

Strategic objectives

- Promoting practical training, research, and development in Agriculture
- Establish sustainable production practices to enhance the profitability of the Farm
- Integrating a model of Farming as a business
- Shifting conventional farms to smart farming concepts.
- Facilitate the development of Agri-entrepreneurs training.

Main Function of the Farm

The PNGUoT Agriculture Farm has two core functions as a field laboratory for students' practical sessions and a research hub for undergraduates, postgraduates and scholar researchers. The Agriculture Farm also produces and sells products that generate revenue to sustain its operation and support the School of Agriculture and the university. Farm supply to Student catering services, aligning the university's strategic approach in sourcing the catering for students is one of the successes in 2025.

Teaching and research

The Agriculture Farm serves as a field laboratory facilitating teaching and research activities, which have seen an increasing number of researchers in the 2025 Academic Year. This includes undergraduates, postgraduates, and scholarly research. There were 2 Master's of Philosophy and 18 Master's of Science research and trials in various research topics conducted on the Farm.

The Farm also encounters challenges in facilitating the activities in the field, especially Farm Machinery and field tools. The Farm tractor was mechanically down, which affected many activity schedules. Farm is unable to allocate adequate manpower to carry out tasks, as the farm has limited manpower available for commercial activities. Farm increase activities in the management of cocoa production blocks, budwood garden, commercial nursery, and budding. On the same, livestock activities increased. Farm staff were stressed out.

Table 1. Teaching & research for 2025

School	ATCDI	BBS4	BSAG3	BSCF4	BSFT3	MEng	MPhil	MSc	Scholars	Total
Agriculture	0	0	15	0	0	0	1	18	11	45
Applied Science	0	0	0	0	1	0	0	0	0	1
ATCDI	2	0	0	0	0	0	0	0	0	2
Business Studies	0	1	0	0	0	0	0	0	0	1
Mechanical Engineering	0	0	0	0	0	1	0	0	0	1
Forestry	0	0	0	3	0	0	0	0	0	3
Grand Total	2	1	15	3	1	1	1	18	11	53

One of the success highlights for the undergraduate practical session in plant propagation (asexual method) was the air layering (marcotting) of *Psidium guajava*, or the common name guava, which was newly established.



Figure 1: Marcotting



Figure 2: Root development



Figure 3: Prepare for pot plant-



Figure 4: 3 weeks after planting

Farm Commercial Production

During the production year 2025, Agriculture Farm overcame many challenges and successfully managed to supply a total of 32,678 dressed chickens (3267Ctn) and 176,000 table eggs (1466Ctn) to the students' catering requirements for whole bird chicken and table eggs.

Farm Commercial Production

During the production year 2025, Agriculture Farm overcame many challenges and successfully managed to supply a total of 32,678 dressed chickens (3267Ctn) and 176,000 table eggs (1466Ctn) to the students' catering requirements for whole bird chicken and table eggs.

Broiler Chicken Production

The broiler chicken Unit stocked a total of 54,444 broiler day-old chicks (DOC) from January to November 2025, with a weekly stocking of 2185 chicks. Broiler Unit operated to maintain supply consistency: 2000 chicks coming in, and 2000 birds going out through sales as live birds and processed. The farm mini processing unit processed birds, packed as whole birds and tray packs for sale. Husbandry and bird management encountered challenges, resulting in an average 40% mortality rate for the year.

- Stock Feed - feed supply shortages and feed quality issues,
- Disease - common E.coli infections
- The unpredictable weather patterns (too cold & extremely warm)
- Inadequate brooding facilities (0-7days old)
- Circulation fans for air movement (28 – 35days)

Table 2. Shows recorded sales so far at different outlets.

Sales	Amount (k)
Farm Counter	166,590.00
Mess Catering	378,590.00
Farm Fresh Shop	105,729.00
Total	650,909.00

Supply to student Catering, as one of the internal fixed markets, has recorded 58% of the total sales as indicated in Figure#5.



Figure#6: Broiler Chicken Sales chart

Egg Production

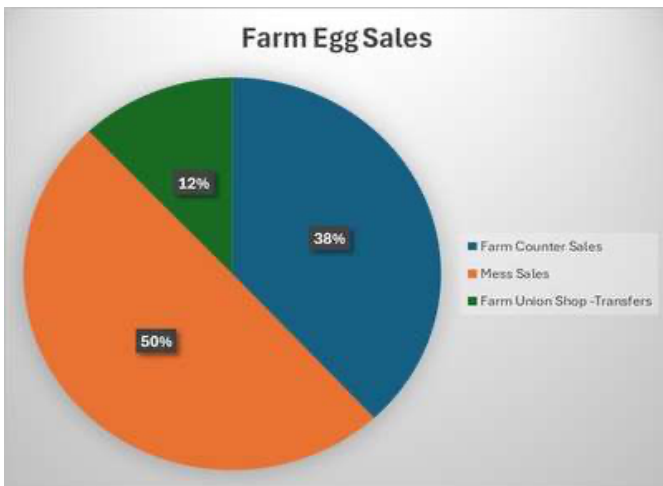
There are two flocks of layer birds this year. This first flock of 3,000-layer performed exceptionally well, with 85% hen-day production (HHD). At the current age of 87 weeks, the flock has maintained a steady decline in production to 75%, which will soon be depleted.

The replacement flock reared was 4700 pullets. Lost some during rearing; the surviving 3000 pullets started laying eggs at 18 weeks. This flock will be transferred from the rearing sheds to the newly built egg production shed. As the flock peaks in production by 25 weeks of age, it will potentially produce 22 cartons of eggs daily. Preparation is progressing for the next replacement flock of 6,000 chicks, hopefully to be purchased and stocked in February 2026.

Sale	Amount (k)
Farm counter sales	134,597.00
Student Catering	176,000.00
Farm Fresh Shop	42,574.00
Total (K)	353,171.00

Egg Sales

the targeted market, the Unitech Students Catering Service. As part of the university's strategic approach to insourcing for student catering, Farm successfully supplies the full requirement of 60 cartons of eggs weekly. The following chart indicates the distribution of Sales outlets this year.



Piggery

The piggery unit consisted of two operations: breeders and growers. The breeders are parent stock comprising 2 boars-boars (male) and 27 sows (females). The litter size averaged at 13 piglets with 95% weaning rates at 8kg live weight between 4-5 weeks of age.

Pig production has been very successful in 2025, producing about 300 finishers (50-60kg) with recorded sales of K205,761.04, the sum of live sales and dressed pork.



Figure 8: 50kg Live weight for live sales

Cocoa Production

Cocoa Unit has been a very successful enterprise of the Agriculture Farm in 2025. Highlighting the cocoa seedlings sales and distribution to individuals, community groups, cooperative groups, companies, and other organizations. Recorded sales of 20 000cloned seedlings to date. Wafi Golfu's orders of 10,000 seedlings are not listed in the table.



Figure. 9: Cocoa seedlings in a commercial nursery

Farm Support Services

Agriculture Farm also supports other stakeholders' programs like Trukai Industries, SPISARD, Wafi-Mining, K92 Mining, and MRA with their community development programs and training. Other local Farmers in cocoa and poultry were supported with technical advice and demonstrations.

The farm also provides Farming information that covers all teaching, research, and production information on cocoa, piggery, poultry, sheep and goats, and vegetables to students, farmers, SME and cooperative or community-based organizations. The farm also supports non-government organizations like World Vision, City Mission, and other church-based Farmers such as Evangelical Brotherhood Church (EBC).

Agriculture Farm received Elementary, primary, and lower and upper secondary schools to visit the farm operation as part of their excursion to observe Farm animals and crops. Agriculture students from secondary schools in Lae visit the Farm for their field excursion

On-the-Job Training (OJT) students from Technical & vocational and other Agriculture training institutes are also expected to undergo skills training in Farm operations.

Milestone Achievement 2025

Agricultural farm infrastructure was built between 1963 and 1986 and is very old. With the current increase in activities, the existing Farm infrastructure is in poor condition to facilitate training and commercial production. Following a few achievements.

Building Improvements

The continuous renovations and maintenance have improved the building and facilities, which have gradually enabled research activities and increased commercial activities. Buildings improved were the Farm Office, converted workshop to broiler chicken pen, the Farm slaughterhouse, the Students' trial to the Pullet rearing shed, and the old duck shed to the layer egg production shed.

Table 4: Cocoa sales to local farmers.

Date	Day	Month	Customer	Payment Type	Receipt#	Location	Description	Quantity	Price	Value
08/02/2025	Thu	Feb	Miriam	Eftpos	135715	Farm	Cocoa Seedlings	50	5	250.00
21/03/2025	Fri	Mar	City Mission	Direct Transfer	135539	Farm	Cocoa Seedlings	1000	5	5,000.00
28/03/2025	Fri	Mar	Venessa Kekokelo	Eftpos	135597	Farm	Cocoa Seedlings	500	5	2,500.00
08/04/2025	Tue	Apr	Walk In Customer	Eftpos	137114	Farm	Cocoa Seedlings	8	5	40.00
23/04/2025	Wed	Apr	Kingstone	Cash	136860	Cashier	Cocoa Seedlings	140	5	700.00
02/05/2025	Fri	May	Apuro	Eftpos	137554	Farm	Cocoa Seedlings	300	5	1,500.00
06/05/2025	Tue	May	Ruth Boassi	Cash	137859	Cashier	Cocoa Seedlings	100	5	500.00
07/05/2025	Wed	May	Frank Francis	Eftpos	138027	Farm	Cocoa Seedlings	40	5	200.00
07/05/2025	Wed	May	Frank Francis	Eftpos	138027	Farm	Cocoa Seedlings	40	5	200.00
08/05/2025	Thu	May	Zamba Pula	Eftpos	138045	Farm	Cocoa Seedlings	600	5	3,000.00
13/05/2025	Tue	May	School of Agriculture	Direct Transfer	138145	Farm	Cocoa Seedlings	1800	3	5,400.00
15/05/2025	Thu	May	Kingstone Inoro	Cash	137921	Cashier	Cocoa Seedlings	120	5	600.00
15/05/2025	Thu	May	Kingstone	Cash	137920	Cashier	Cocoa Seedlings	80	5	400.00
26/05/2025	Mon	May	Michae Gena	Direct Transfer	138549	Mt Hagen	Cocoa Seedlings	300	5	1,500.00
28/05/2025	Wed	May	Jerome Nek	Cash	137997	Cashier	Cocoa Seedlings	20	5	100.00
28/05/2025	Wed	May	Tia Bingis	Cash	137996	Cashier	Cocoa Seedlings	20	5	100.00
02/06/2025	Mon	Jun	Tony Nodol	Cash	138631	Cashier	Cocoa Seedlings	20	5	100.00
02/06/2025	Mon	Jun	Rebecca Wall	Cash	138632	Cashier	Cocoa Seedlings	20	5	100.00
17/06/2025	Tue	Jun	Diegro Wengo	Eftpos	138952	Farm	Cocoa Seedlings	45	5	225.00
24/06/2025	Tue	Jun	Bicks James	Cash	138713	Cashier	Cocoa Seedlings	50	5	250.00
24/06/2025	Tue	Jun	Aze Eric	Cash	138711	Cashier	Cocoa Seedlings	20	5	100.00
24/06/2025	Tue	Jun	Paul	Cash	138712	Cashier	Cocoa Seedlings	20	5	100.00
26/06/2025	Thu	Jun	K92 Mine	Direct Deposit	138968	Farm	Cocoa Seedlings	360	5	1,800.00
30/06/2025	Mon	Jun	Simon Amos	Eftpos	138726	Cashier	Cocoa Seedlings	50	5	250.00
08/07/2025	Tue	Jul	Yaking Lotto	Direct Transfer	139228	Farm	Cocoa Seedlings	90	5	450.00
11/07/2025	Fri	Jul	Michelle Banga	Eftpos	139256	Farm	Cocoa Seedlings	50	5	250.00
15/07/2025	Tue	Jul	Enoch Sion	Eftpos	139271	Farm	Cocoa Seedlings	100	5	500.00
14/08/2025	Thu	Aug	Ibis Maraidom	Direct Deposit	140542	Farm	Cocoa Seedlings	300	5	1,500.00
21/08/2025	Thu	Aug	Unitech Farm	Direct Deposit	140588	Farm	Dry Bean Cocoa	1	1200	1,200.00
08/09/2025	Mon	Sept	Sibron	Cash	140812	Cashier	Cocoa Seedlings	30	5	150.00
02/10/2025	Thu	Oct	Michae Gena	Direct Transfer	141097	Farm	Cocoa Seedlings	300	5	1,500.00
13/10/2025	Mon	Oct	Farm	Direct Deposit	141107	Farm	Dry Bean Cocoa	4	1000	4,000.00
31/10/2025	Fri	Oct	Tape Moasing	Cash	139852	Cashier	Cocoa Seedlings	400	5	2,000.00
TOTAL										36,465.00

Building development

One of the milestone achievements is the progress of a new layer (egg) production shed (68 x 12m), which can house 10,000 layers on the floor, but if converted to a cage system, a capacity of 24,000 layers.



Farm Fresh Shop

One of the milestone achievements for the Agriculture Farm is the establishment of the Farm Fresh Shop at the Union Shop inside the university. In August 2025, Farm commenced selling all Farm produce at the shop, which has enhanced Farm sales and revenue.

1. Challenges & way forward

i. Tractor

The farm operated with a faulty tractor, which has affected Farm operations, particularly field research and trials. Unbearable challenge for students and researchers in land preparation and other activities. Going forward, a new tractor for the Farm will be purchased in January 2026

ii. Labor

As the Farm activities increased, the Farm had a labor shortage. There was less manpower, and the Farm's commitment to the researcher's activities was inconsistent. Going forward, Farm will recruit five new staff members who will be assigned to Teaching & Research activities only.

iii. Farm Animal Mortality

One of the main challenges is Farm animal mortality (deaths), especially for poultry. As birds are in captivity, some of the survival requirements include a conducive environment, such as temperature, humidity, air flow, deep litter condition, quality, and consistent provision of feed and water. Health and disease status is considerably at a minimum, of which Farm is very mindful of quarantine and biosecurity, including vaccinations and medication program.



PNGUoT Rainforest Habitat

Introduction

This report presents a consolidated progress update for the Rainforest Habitat (RFH) from January to December 2025, summarizing operations, achievements, partnerships, finance, challenges, and strategic priorities. The reporting period reflects major advancements in administration, biodiversity conservation, student training, community engagement, and enterprise development.

RFH's work remained aligned with the University's Strategic Plan through its contributions to:

- Environmental education and research.
- Sustainable enterprise and income generation.
- Partnerships and community engagement.
- Asset management and infrastructural improvements.

Despite financial and logistical challenges, RFH continued to operate its zoo, guesthouse, canteen/store, function area, and gift shop, while supporting students, conservation advocacy, and new partnerships.

Core functions and activities

RFH continued to deliver on key functional areas:

Zoo Operations & Animal Welfare (Environmental Conservation)

- Daily care of the species and continuous hosting of visitors.
- Minor repairs to enclosures, aviary nets, and the Agro crocodile exhibit.
- Grass cutting and general habitat upkeep.
- Intake of new animals.

Guesthouse Operations

- Main revenue contributor (55%).
- Supported Unitech staff, corporate clients, and student accommodation.

Function Areas & Events

- Hosted 50+ events in 2025, generating consistent revenue.
- Canteen, Store & Giftshop
- Daily operations with twice-weekly banking.
- Supply of basic goods and cultural items.

Research, Training & Capacity Development

- Supported student research (PNGUoT Forestry).
- Industrial training (University of Goroka, Jan–May & Jul–Oct cohorts).
- On-the-job training (St. Therese Vocational Centre).
- Engaged five students from different Universities and schools across the country for the Christmas period.

Staffing and resources

Staffing Updates

- Staff maintained continuous operations across all service areas.

- RFH Supervisor transitioned to UDC (second half).
- Continued reliance on internal revenue for staff wages.

Capacity Building

- Participation in regional workshops (Pacific Week of Forestry and Agriculture, GGGI Incubator workshop).
- Engaged with Forestry Australia and the PNG Foresters Association.
- External learning through partnerships with POM Nature Park, strengthening conservation efforts
- Two Admin STAFF sponsored for the UEL short course.

Resources & Infrastructure

- Backup water tank installed (1500L).
- Guesthouse bathroom maintenance completed.
- Genset connection extended to the Manager's House.
- ICT began installation of the RFH WiFi network (assessment + main system setup).
- Ongoing use of the UEL vehicle for logistics.
- The New Crocodile exhibit was completed in November.

Project Highlights

Student Training & Academic Partnerships

RFH continued its leadership in environmental training:

- PNGUoT Forestry Research Support
 - Supervised research: "Gradient Precipitation Effects on Decomposition Across Habitat Types..." by Gideon Ketefa under Dr. Jimmy Moses & Mr. Olo Gebia.
- Industrial Training –
 - Five students from UOG studying Environmental Science completed a practicum (Jan–May).
 - Five students from PNGUoT, UNRE, and PAU to be engaged during the Christmas period.
- On-the-Job Training – St. Therese Vocational Centre
 - Five trainees completed OJT (8 Sept – 17 Oct).

Zoo Refurbishment & Infrastructure Development

- Agro the Saltwater Crocodile Exhibit
 - Pool cleaning, repainting, and enclosure upgrades completed.
- Crocodile Exhibit Development Project
 - Construction of the first enclosure commenced.
 - Fully completed in November and now have catered to two of our saltwater crocodiles.
- Tree Kangaroo Exhibit Refurbishment
 - Cleanup has begun for two abandoned enclosures.
 - Restoration planned for 2025–2026.
- Aviary Maintenance
 - Tree trimming and net patching completed.
- Bore water replacement has been purchased and is to be installed in December 2025.

Guesthouse Upgrades

- 1500L backup water tank installed.
- Bathroom refurbishment completed.
- Continuous maintenance is ongoing due to the aging facility.
- Genset connection extended from the guesthouse to the Manager's House.
- 5 x Klinki pines along the Guesthouse have been felled down as they were a threat to our guests. Planned milling to take place before the year ends.

Facilities, Water & Utilities

- Zoo Bore Water Pump
 - Out of service for 5+ years; assessment done. RFH purchased a replacement submersible water pump.
- RFH Nursery Establishment
 - 1000 polybags procured; seedlings raised:
 - Taun (*Pomotia pinnata*)
 - Cassowary Plum (*Cerbera floribunda*) Candle Tree (*Garcinia cymosa*)
 - Beach Calophyllum (*Calophyllum inophyllum*) Blue Quandong (*Elaeocarpus grandis*)

Sustainable Enterprise – Mushroom Project

- Oyster Mushroom Project revived after August 2025 technical mission to Juncao Mushroom Producers (Goroka).
- Full production achieved; sales launched on 1 October 2025 at K30/kg.

- Supports food security, eco-enterprise, and livelihood development.

Social Media & Public Visibility

- LinkedIn (Sept 22 – Oct 21, 2025)
 - Over 2200 followers on LinkedIn
 - 12,316 impressions (+21%),
 - Strong growth driven by student training, the mushroom project, and exhibit updates.
- Facebook (Jul 25 – Oct 22, 2025)
 - Over 1000 followers on FB.
 - 70,207 views (+119.2%)
 - 32,600 reach (+97.2%)
 - 1,800 interactions (+18.6%)
 - Entirely organic reach.

Administration, Reporting & Governance

- IPA Certificate received.
- TIN application lodged 12 July 2025; processing completed September 2025.
- Three donor proposals submitted.
- Weekly and monthly reporting is maintained.
- Strategic Plan, Workplan, Profile & Annual Budget completed and approved in board meeting.

Challenges and Way forward

- Challenges
 - No dedicated RFH vehicle for logistics & animal feed.
 - Incomplete financial reporting system (MYOB pending license).
 - No funding support from Unitech. Limited funds for major infrastructure redevelopment.

Corrective Actions Taken

- UEL is providing vehicle support to address transport constraints.
- BSP EFTPOS application submitted (Oct 6, 2025) – installation pending.
- Continuous facility maintenance.
- Introducing the Mushroom project for extra revenue.
- Registration as a legal entity completed. Proposal writing and fundraising started.

Way Forward

Next year, the section will work to improve its operations, build staff skills, and provide better services. We will work to address resource shortages, upgrade key facilities, and foster a more responsible and hardworking team culture. The section will also seek new partnerships and community activities that support the university's goals, while ensuring our projects are well-managed and meet the needs of our stakeholders.





PROJECTS OFFICE

Introduction

The Annual Report for the Papua New Guinea University of Technology (PNGUoT) Projects Office outlines its core functions and operations in alignment with the PNGUoT Strategic Plan 2025 – 2029. In addition, the annual report provides updates on the ongoing and completed projects, highlights key challenges, and provides the way forward.

Alignment to PNGUoT Strategic Plan

Projects Office operations are aligned to PNGUoT Strategic Plan and Workplan 2025 – 2029 as follows;

- **Theme 3 – Strategic Partnering**
 - 3.1 Robust University and/or Industry Partnership
 - c. Partner with financial institutions to support development projects
 - 3.2 A smart campus promoting inclusivity
 - 3.4 Government-funded projects driven by higher education policy
- **Theme 4 - Operational Excellence**
 - 4.12 Smart Campus infrastructure
 - d. Project Office will deliver all projects within time and budget
 - i. Mess opens by April
 - ii. The 6x 2 Bedroom Duplex be opened by April
 - iii. The Multipurpose Hall building contract awarded

Key Highlights of the Year

- Ongoing Public Infrastructure Program (PIP) Submissions to DHERST for 2026 funding for Unitech Multipurpose Hall, School of Agriculture Building, 224 Bed Male Dorm, Office & Classroom Complex.
- Dining Hall (Mess) completion under the Projects Office management (after the contractor termination).
- Another key highlight would be the completion of 6x 2-bedroom duplexes by the end of December 2025.

CORE FUNCTIONS AND ACTIVITIES

The PNGUoT Projects Office has two core functions:

- Infrastructure Project Implementation
- Planning

The Projects Office is responsible for implementing infrastructure projects at the Unitech Campus in Taraka and at PNGUoT's sister universities when required. In addition, the Projects Office has been supporting the Planning function, which has remained vacant since 2013.

These two core functions are carried out with the support of the Vice-Chancellor, the Pro Vice-Chancellor (Administration), and the Director of Projects.

STAFFING AND RESOURCES

The PNGUoT Projects Office, led by the Director of Projects, oversees project activities with support from the Senior Executive Management Team through the Vice-Chancellor and the Pro Vice-Chancellor (Administration), on an as-required basis.

The Projects Office currently has ten (10) staff members, most of whom are employed on temporary contract terms. Previously, the office had fifteen (15) staff; however, several left to pursue further studies, accept other employment opportunities, or due to security-related reasons.

Plans are in place to strengthen the staffing capacity of the Projects Office. The office is working closely with the Recruitment Team to fill existing vacancies and engage suitably qualified personnel.

Where necessary, consulting architects and associated specialist consultants are engaged to ensure projects are delivered within budget, on schedule, and in accordance with the approved scope of work, drawings, and specifications.

PROJECTS HIGHLIGHTS

Completed and Ongoing Public Investment Program (PIP) Funded Projects



Dining Hall

Work Status: 100% completed on 30th September 2025



New Civil Road Works and New 6x 2 Bedroom Duplex

Contract Name: Construction of the New Civil Road Works and 6x 2 Bedroom Duplex

Work Status: Work in progress with 85% of work completed.

Issues / Delays: Contractor terminated after five (5) Extensions of Time (EOT). Unitech Projects Office engaged a new construction crew to complete the project by the end of December 2025.



Unitech Multi-purpose Hall

Tender Name: Full Design and Documentation of the Unitech Multipurpose Hall

Tender No.: NPC-UOT-SPC-2023-01

Tender Status: Tender closed and pending clearance from the Office of the State Solicitor (OSS). Tender Bid Validity Period extended to 15th January 2026.



Matheson Library Retrofit – Stage 2

Design & Documentation: Architectural Drawings – 100%,
Electrical Services – 0%,
Mechanical Services – 0%,
Hydraulic Services – 0%

Tender Name: Pending

Tender No.: Pending

Ongoing External Donor Funded Projects II



100 Bed Female Student Dormitory

Funding Source:	DFAT – Incentive Funds
Contract Name:	Construction of 100 Bed Female Student Dormitory at PNG University of Technology
Contract Value:	K16,288,565.78 inclusive of GST
Contract Duration:	14 months (420 days)
Work Status:	Work in progress with 56% of work completed.

Completed and Ongoing Recurrent Expenditure Funded Projects

55 Bed Male Self-Sponsor Students Dormitory

Tender Name:	Construction of 55 Bed Male Self-Sponsor Student Dormitory
Tender No.:	NPC-UOT-SPC-2023-2
Tender Status:	Public tender advertisement pending further directive

Ambulance & Fire Station Building

Contract Name:	Construction of a new Ambulance & Fire Station Building, inclusive of any associated site works
Contract Value:	K596,861.88 inclusive of GST
Contract Duration:	5 months
Revised Duration:	9 months
Work Status:	100% completed as of 3rd March 2025. Defects Liability Period lapse on 12th May 2025

Dean's Office Complex

Concept Design & Documentation:	100% Completed
Request for Quote (RFQ):	Complete Professional Documents of Drawings, Specifications, Compliance Check, Certification & Bill of Quantities
RFQ Status:	Pending awarding of Contract

CHALLENGES AND WAY FORWARD

Challenges

Securing Funding

Obtaining sufficient funding from GoPNG or external development partners remains a significant challenge. Delays or uncertainty in financial support affect project timelines and implementation.

Engaging Reputable Local Contractors

Identifying and securing reliable local building contractors who can deliver quality infrastructure on time is another significant challenge. Issues around contractor capacity and performance usually hinder progress.

Maintaining Project Team Stability

Retaining the project team is difficult as many staff are employed on temporary contracts with limited benefits. The lack of long-term job security, training opportunities, and professional development reduces team motivation and continuity.

Way Forward

- Strengthen Funding Strategy
- Improve Contractor Selection and Oversight
- Enhance Staff Retention and Capacity Development





Annual Report 2025

**“A leader in scientific research and
technological innovation that is impacting society.”**