

RESEARCH OFFICE

RESEARCH newsletter

Issue No. 01 | May 2021

Research Seminar Series 2021

The Vice-Chancellor, Professor Toby Wilkinson, presented the first research seminar for the 2021 seminar series on 11 March, titled 'How should a young dual-sector university approach research?'

In his seminar, the Vice-Chancellor explained that there were different types of research universities and different types of university research, before discussing which kind of research university FNU should be and which kind of university research FNU should undertake.

He discussed some important issues for consideration, including staff expertise and experience; the scope of research undertaken at the university; the availability of research funding; the facilities for research; the institutional culture; and whether the university aspired to be world-leading or world-class.

He explained the limiting factors for research at a young dual-sector university, before highlighting the opportunities, which included engagement with the community, a focus on business and employability, and the ability to be agile and responsive.



International case studies were presented, to show how different young universities around the world had approached research and carved out distinctive niches for themselves in a crowded research landscape.

The Vice-Chancellor noted several other important considerations, including identification of a few targeted research themes, the setting of ambitious but realistic goals, the synergies between TVET and research, and the fact that research was not for everyone. He urged a broader definition of research impact and, noted that leading researchers did not always make the more effective research leaders.

In his concluding comments, the Vice-Chancellor suggested that the focus of research at FNU should be on ideas relevant to Fiji as well as applicable to the world. Climate change adaptation could be one such focus, with relevance to all Colleges.

The seminar was very well received and applauded by the FNU academic community.

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Conferences



Congratulations to **Dr. Ravita Prasad** from the College of Engineering, Science and Technology for being selected on a competitive basis to be part of the Commonwealth Futures Climate Research Cohort established by a partnership between the Association of Commonwealth Universities and the British Council. This is a unique research cohort that brings together 26 young researchers from 14 different countries around the globe to develop the researchers' skills and knowledge through a series of virtual workshops throughout the year. The workshops will focus on, amongst other things, research leadership, how to engage with multiple non-academic stakeholders to share knowledge, and how to make a research impact. It will prepare Early Career Researchers to effectively conduct research-to-action projects and contribute to policy development and improving practices. Apart from these workshops, the researchers will also be supported by senior climate-focused academics to mentor them throughout the year. These young researchers will also undertake peer-led research-to-action projects with seed funding.

Dr. Ravita Prasad will also participate in the 26th United Nations Climate Change Conference (COP26) in Glasgow this November funded by the Association of Commonwealth Universities subject to travel and attendance is dependent on COVID-19 guidance and restrictions.

More information on the research cohort is accessible on <https://www.acu.ac.uk/news/acu-and-british-council-launch-the-climate-research-cohort/>

Fiji National University is proud to announce that Dr. Ravita Prasad has been selected to represent the university on this cohort. The selection process was extremely competitive with applicants from countries around the world.

Congratulations to **Dr. Kumar Shirotiya** for receiving an Early Career Conference Grant from the Association of Commonwealth Universities (ACU) to participate in the European Conference on Educational Research 2021. To achieve this award Dr. Shirotiya competed with a large number of applicants from ACU member countries.

Externally Funded Projects

Congratulations to our colleagues who are successfully undertaking externally funded research projects in collaboration with external stakeholders. These include:

- 1. Researchers:** Dr. Donald Wilson and Dr. Numa Vera from College of Medicine, Nursing and Health Sciences, Dr. Royford Magiri from College of Agriculture Fisheries and Forestry and Dr. Ashodra Gautam from Ministry of Health.
Project Title: 'Enhancing the management of antimicrobial resistance (EMAR) in Fiji.'
Funded by: Commonwealth Scientific and Industrial Research Organisation for **AUD 321,223**.
- 2. Researchers:** Dr. Sales, Mr. Atish Chand and Ms. Vashnika Narayan from the College of Agriculture, Fisheries and Forestry.
Project Title: 'Sectoral analysis and investment requirements for improving the competitiveness of Fiji and Samoa small ruminant sector.'
Funded by: FocusGroupGo Asia Pacific for **AUD 36,884**.
- 3. Researchers:** Dr. Gade Waqa and Ms. Susana Lolohea from College of Medicine, Nursing and Health Sciences.
Project Title: 'To identify the types and reach of alcohol marketing in selected Pacific Island Countries (PICs).'
Funded by: World Health Organisation (WHO) for **FJD 35,040**.
- 4. Ms. Alvina Khan**, student of the College of Medicine, Nursing and Health Sciences.
Award: Scholarship for Masters of Public Health.
Funded by: Fiji Institute of Pacific Health Research (FIPHR) for **FJD 5,000**.

Journal Publications

Congratulations to the following FNU authors for publishing their papers in highly ranked journals:

- 1. Kumar, S., Sharma, R., & Sharma, A. (2021).** "OPTICAL+: a frequency-based deep learning scheme for recognizing brain wave signals." *PeerJ Computer Science*, 7, DOI: doi.org/10.7717/peerj-cs.375. Q1
- 2. James, K., & Nadan, Y. (2021).** "Gesturing Elsewhere and Offshore Memory: Amateur Elite Soccer in the Fiji Islands, 1980–1992." *Sport History Review*, 1, 1-19, DOI: org/10.1123/shr.2020-0001. Q1
- 3. Johnson, J. B., Reddy, P., Chand, R., & Naiker, M. (2021).** Attitudes and awareness of regional Pacific Island students towards e-learning. *International Journal of Educational Technology in Higher Education*, 18(1), 1-20. Q1
- 4. Ali, A. P., Mohammadnezhad, M., May, W., & Kabir, R. (2021).** "The perception of undergraduate dental students toward a clinical learning environment at school of dentistry and oral health, Fiji National University, Fiji." *Journal of International Society of Preventive & Community Dentistry*, 11(1), 26. Q2

5. Sachan, H. K., & Krishna, D. (2021). "Fiji Sugarcane Industry Amidst COVID-19 Pandemic." *Sugar Tech*, 1-3, DOI: 10.1007/s12355-020-00929. Q2
6. Oyewola, O. M. (2021). Third-and Four-order velocity structure functions in a perturbed turbulent boundary layer. *APRN Journal of Engineering and Applied Sciences*, 16(1), 10-12. Q2
7. Gali, A., Mohammadnezhad, M., Khan, S., & Lowry, J. (2021). "Predictors of under Five Years Old Diarrhoeal Disease in Mataniko Informal Settlements in the Solomon Islands." *Global Journal of Health Science*, 13(2). Q3
8. Saliya, C. A., & Pandey, S. K. (2021). "Financial battle against climate change—assessing effectiveness using a scorecard." *Qualitative Research in Financial Markets*, DOI: org/10.1108/QRFM-05-2020-0087. Q3
9. Nair, R. D., Odrovakavula, L. L., Mohammadnezhad, M., Reddy, K. V. R., Gohil, D. A., & Sami, S. S. (2021). "Data Cleaning Needs and Issues: A Case Study of the National Reproductive Health Assessment (RHA) Data from Solomon Islands." *Global Journal of Health Science*, 13(3), 23-28. Q3
10. Narayan, R., & Nair, V. K. (2021). "The Roles of Communicative Language Mechanisms in Occupational Health and Safety Milieu in Reducing Workplace Hazards." *Journal of Language Teaching and Research*, 12(2), 264-274. Q3
11. Chand, S.A., Kumar, R.R. and Stauvermann, P.J. (2021). "Determinants of bank stability in a small island economy: a study of Fiji." *Accounting Research Journal*, 34(13), 22-42. Q3
12. Lincoln, J., Mohammadnezhad, M., & Khan, S. (2021). "Knowledge, Attitude, and Practice (KAP) towards Family Planning among Women of Reproductive Age in Fiji." *Global Journal of Health Science*, 13(4), 24-31. Q3
13. Tekanene, M. U., Mohammadnezhad, M., Khan, S., & Maharaj, R. (2021). "Knowledge, Attitude and Practice (KAP) related to Type 2 Diabetes Mellitus (T2DM) among Healthy Adults in Kiribati." *Global Journal of Health Science*, 13(5), 200 - 209. Q3

Research Recognition

Congratulations to **Dr. Shiu Kumar** from the College of Engineering Science and Technology who has been recognised by the University of the South Pacific (USP) in the category of Best Student Research at the 9th Research Excellence and Innovation Awards 2021. Dr. Kumar received the 2019 Vice Chancellor's Prize for Best Student Research jointly with a colleague, Dr Michael Ha'apio. The award was in recognition of his research paper titled "Brain wave classification using long short-term memory-based OPTICAL predictor" published in Scientific Reports, a Q1 ranked journal. Dr. Shiu Kumar also won the

Vice Chancellor's Research Excellence Award at Fiji National University in 2019 in recognition of outstanding achievement in research in the category of Higher Degrees by Research.

Research Seminars

The following research seminars were organised and hosted by the College of Engineering Science and Technology.

'Global Energy Issues and Challenges' presented by Professor Muiyiwa Sam Adaramola, Professor of Renewal Energy at the Norwegian University of Life Sciences, on 24th February 2021 via zoom.

'Seismic Performance of Timber Braced Frame Structures Using Resilient Slip Friction Joint Mechanism' by Mr. Rajnil Rohit Lal, Department Head of Structural Engineering, School of Building and Civil Engineering at Fiji National University, on 24th March 2021 via zoom.

'Future Internet Architecture for Smart City Services' by Professor Dhananjay Singh, Director of Resense Labs in the Department of Electronic Engineering, at Fiji National University on 28th April 2021 via Zoom.

Research Achievements 2020

FNU supports research in a broad range of areas relevant to Fiji in partnership with the government, industries, and international universities for the transformation of our societies and economy.

The focus of our research at FNU is applied research, addressing issues pertinent to national development.

Research priority areas based on research strengths at FNU and the needs in Fiji include:

- Health and Wellbeing
- Agriculture
- Computer Science and Artificial Intelligence
- Science, Engineering and Climate Change
- Education, Social Science, Arts and Humanities
- Business and Economics

FNU provides a supportive environment for research to our researchers, collaborative research partners (Monash University, University of Queensland, University of New South Wales, Deakin University, University of Maryland, Otago University, World Health Organisation, United Nations, South Pacific Commission, our Ministries of Health & Medical Services, Education Heritage & Arts, Agriculture, and Forestry), and to our research students.

Research Publications in Ranked Journals - 2020

		CEST	CMNHS	CAFF	CBHTS	CHE	OPVCL&T	Target	Achieved
No of papers in Ranked Journal	Q1	29	26	9	5	5	1	74	130
	Q2	13	11	9	4	1	0		
	Q3	4	7	2	1	0	0		
	Q4	2	0	1	0	0	0		
	Total	48	44	21	10	6	1		

Research Income From External Sources - 2020

	CEST	CMNHS	CAFF	CBHTS	CHE	OPVCL&T	FMA	Target	Achieved
No of Externally Funded Projects	0	4	5	0	0	1	1	-	11
\$ Value of Research Income	0	\$386,576.69	\$138,535.04	0	0	\$1,371,475.08	\$231,000.00	\$1,000,000.00	\$2,127,586.81

Internally Funded Research Projects - 2020

	CEST	CMNHS	CAFF	CBHTS	CHE	Target	Achieved
No of Internally Funded Projects	0	4	5	0	1	-	6
\$ Value of Research Income	0	\$41,150.00	\$58,150.00	0	\$1,475.00	-	\$100,775.00

Research Mentoring Scheme

A Research Mentoring Scheme was implemented in 2020 for early and mid-career researchers to be mentored by a Professor to help the researchers develop their research profiles.

Higher Degrees by Research (HDR) Programmes

FNU offers PhD and Masters by Research programmes that are of international standards, meeting the requirements of Quality Assurance Agency (QAA) UK, Australian Qualifications Framework (AQF), and Fiji Higher Education Commission (FHEC). These programmes are structured for timely completions, entail research preparatory courses, and three milestones for monitoring progress and fostering excellence.

Vice-Chancellor's Research Excellence Award Winners for 2020

The Vice Chancellor's Research Awards for 2020 were awarded in two categories, and the winners were:

Dr. Ravita Prasad, who won the Vice Chancellor's Research Excellence Award in the category of Higher Degree by Research.

She completed her PhD on 'Long Term Energy Planning' with six Q1 journal publications, one peer-reviewed publication in a local journal, four international conference papers, and one poster presentation for which she won the first prize. Her Scopus h-index is 5. Her research work explored various possible scenarios for reducing future fossil fuel usage and GHG emissions in Fiji's energy sector, considering the population increase while maintaining steady GDP growth. The energy sector included grid electricity, land transport, domestic maritime transport, and domestic air transport. Her PhD work led her to be part of the team that authored a living document titled "Fiji's Low Emission Development Strategy 2018-2050" that the Prime Minister presented to the world at the United Nations Climate Change Conference, COP 23, in 2018.

Dr. Alvin Lal won the Vice Chancellor's Research Excellence Award in the category of Early Career Researcher. Dr. Alvin Lal completed his PhD on 'Development of Sustainable Groundwater Management Methodologies to Control Saltwater Intrusion into Coastal Aquifers with application to a Tropical Pacific Island Country' at James Cook University in Australia. Dr. Lal has to date published four Q1 journal papers, three Q2 journal papers, and 1 Q3 journal paper. His Scopus h-index is 5. As part of his PhD project, Dr. Lal developed state-of-the-art 3D groundwater models (using Groundwater Modelling System Software) and water quality forecasting models using Artificial Neural Network, Genetic Programming, Support Vector Machines, Gaussian Process Regression, and Group Method of Data Handling algorithms for sustainable management of an aquifer system in Kiribati. The application of Dr Lal's 3D groundwater and forecasting models have been applied to sustainably manage groundwater resources in Kiribati, which has benefited the urban population of South Tarawa, Kiribati. Dr. Lal received the 2020 Deans Research Excellence Award at James Cook University in Australia for his PhD.

Research Policies, Procedures, Guidelines, and Forms for Research

Research policies, procedures, guidelines, and forms for research were approved by the Senate in December 2019 and were accessible internally. After the Senate endorsement of the policies at the first 2021 Senate meeting the following policies are accessible on the FNU [Research Website](#)

FNU Higher Degrees by Research Policy and Procedure

- HDR Application Form
- Research Proposal Guideline
- FNU Thesis Structure Guideline
- Candidature Confirmation Assessment Form
- Mid Candidature Review Form
- Completion Seminar Review Form
- Notification of Intention to Submit Form
- FNU Nomination of Examiners Guideline
- Nomination of Examiners Form
- External Examiner Declaration Form
- Release of Thesis for Examination Form
- FNU External Examiner Guideline for Research Degrees
- Doctor of Philosophy & Masters by Research Thesis Examination Form
- HDR Oral Examination Report Form
- External Examiner Claim Form (not to be uploaded on website)
- Thesis Consent Form

FNU Higher Degrees by Research Supervision Policy

- FNU HDR Supervisor and Student Code of Practice
- Procedures and Conditions for Appointing Adjunct Professors as PhD Supervisors at FNU
- HDR Supervisor & Candidate Meeting Log Form
- Change of Supervisor Request Form

FNU Human Research Ethics Policy

- Human Research Ethics Application Form
- Participant Information Sheet
- Consent Form
- Confidentiality Agreement Form

Constitution of the FNU Animal Research Ethics Committee

- Animal Owner Informed Consent Form for Use of Animals for Research
- Information Sheet for Animal Owners
- Animal Research Ethics Feedback Template
- Application Form for Ethics Approval for Research Involving Animals
- Postmortem Report Template
- Unexpected Adverse Event Report
- FNU Code of Conduct for Animal Research

FNU Hazardous Material Management Policy for Researchers

FNU Intellectual Property & Research Commercialisation Policy

FNU Research Data Management Policy and Procedure for

Staff, Adjuncts, HDR Candidates, and Visitors

FNU Authorship Policy

FNU Conference Policy

- Conference Funding Application Process and Form
- HDR Candidate Conference Support Form

FNU Research Funding Schemes Guidelines

- Research Proposal Guideline
- Research Preparatory Funding Scheme Guideline & Application Form
- Seed Funding Scheme Guideline & Application Form
- Industry Collaborative Funding Scheme Guideline & Application Form
- International Visiting Fellowship Scheme Guideline & Application Form
- Project Progress Report Form
- Extension in Time for Completion of Funded Project Form
- Funded Project Completion Report Form
- Funded Project Exit Form

FNU Research Incentive Awards Guideline

- Procedure for Finding Journal Rankings at FNU
- Incentive Award Claim Form

Fiji National University proudly provides a well-developed research environment for its academics and Higher Degrees by Research candidates to undertake cutting-edge research projects addressing real-world issues

Higher Degrees by Research Training Programmes

FNU's first Higher Degrees by Research Supervisor Training Programme and FNU Higher Degrees by Research (Doctoral) Training Programme was launched by the FNU Vice-Chancellor, Professor Toby Wilkinson, on Tuesday 11th May 2021. Due to the closure of all FNU campuses, the launch of the programmes was done virtually via Zoom.

The Research Office has developed and implemented the Higher Degrees by Research (HDR) Supervisor Training Programme to adequately prepare HDR supervisors to supervise HDR candidates. This professional development programme aims to inform HDR supervisors of all HDR issues, policies, and procedures to guide a candidate for timely completion.

FNU Higher Degrees by Research (Doctoral) Training Programme has been designed to assist HDR candidates in developing skills and competencies to become independent researchers. HDR candidates will be provided support with short courses to develop a range of skills and aptitudes as they progress with their research during their HDR candidature. A researcher is responsible for their independent learning, working closely with their supervisors. Therefore, HDR candidates are encouraged to take full advantage of the Higher Degrees by Research (Doctoral) Training Programme to enhance the research capabilities required for their specific research projects.

Professor Mohini Singh Pro Vice Chancellor Research left FNU on 11 May 2021, and her contribution to FNU research is notable.

Research Office

For all research support and questions, please contact Research Office on the details provided below:

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