Dr Ravita Prasad and Dr Alvin Lal from the College of Engineering, Science and Technology won the Vice Chancellor’s Research Excellence Awards 2020 in the categories of Higher Degree by Research and Early Career Researcher.

Dr Ravita Prasad 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 Ph.D. 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. Currently, she is the co-supervisor of a Master of Science in Physics student at the University of the South Pacific.

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’. To date he has published four Q1 journal papers, three Q2 journal papers, and 1 Q3 journal paper. His Scopus h-index is 5.

As part of this research, Dr Lal developed state-of-the-art 3D groundwater models (using Groundwater Modelling System Software) and water quality forecasting models using Artificial Intelligence (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.

This research has developed groundwater monitoring tools and models that are used in groundwater management strategies and adaptive groundwater monitoring networks. 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. For this effort, he also received the prestigious 2020 Deans Research Excellence Award from James Cook University in Australia. He has also proven his ability to attain external funds by successfully receiving an equivalent of FJD4,000 from external sources.

Dr Alvin Lal won the Vice Chancellor’s Research Excellence Award in the category of Early Career Researcher.

The Pro Vice Chancellor Research, on behalf of the Acting Vice Chancellor congratulates both Dr Prasad and Dr Lal.
Funded Research Projects

Congratulations to our colleagues who have been successful in attaining research funds from external and internal sources to complete projects in one or more FNU research priority areas.

Externally Funded Projects:

- Mr Mahesa Abeynayake, Captain Tevita Robanakadavu and Mr Malakao Matanisiga from Fiji Maritime Academy for the project ‘WWF/Tuna Longline Fisheries in Fiji’ funded by World Wide Fund for Nature for FJD 231,000.00.
- Dr Gade Waqa, Mr Jeremaia Coriakula & Ms Susana Lolohea from the College of Medicine, Nursing & Health Sciences for the project titled ‘Conduct Research on Cultural Perspectives on Behavioural Change Related to NCDs among Women of Reproductive Age’ funded by the University of Otago for NZD 18,900.00.
- Dr Donald Wilson and Ms Susana Lolohea from the College of Medicine, Nursing & Health Sciences for the project titled ‘The Pacific Community (SPC) / Pacific Evidence-Informed Policies and Programmes (Pac-EVIPP) Data Reporting for Consumer Data Research Centre (CDRC)’ funded by The Pacific Community for AUD 152,042.00.

Internally Funded Projects:

- Dr Eunice Okyere, Dr Mosese Salusalu, Dr Kissinger Marfoh for the project titled ‘Assessing the impact of Covid-19 pandemic on students and staff of Fiji National University’ for FJ $15,000.00.
- Dr Ravinesh Ram, Professor Paul Iji and Ms Sumilesh Pal for the project titled ‘Implications of the COVID-19 Pandemic on the Supply, Quality, and Value of Fresh Fish from Labasa to Suva’ for FJ $12,150.00.
- Ms Samsun Nisha Aiyub, Ms Adi Dansey, Ms Sainimere Gadai and Ms Litia Sili for the project titled ‘Psychiatric Nurses’ Experiences of Workplace Violence at St. Giles Psychiatric Hospital in Fiji’ for FJ $1,475.00.
- Ms Sumilesh Wati Pal for the project titled ‘Women and Children Livelihood: Innovating Aquaculture to Enhance Mitigation and Adaptation to Adverse Effects of Climate Change in Fiji’ for FJ $1,000.00.

Conference Presentation

Congratulations to Dr Sakul Kundra from the College of Humanities and Education for presenting a talk on the Challenges and Opportunities of Ecotourism in Western Viti Levu at the Nadi Chamber of Commerce & Industry Final Business Forum on 30th October. The Business Forum was chaired by Hon Mr Jone Usamate, Minister for Infrastructure, Meteorological Services, Lands and Mineral Resources, and Hon Mr Semi Korilavesu, Minister for Fisheries.

During October and November, the following Research Seminars were held at FNU:

1. ‘Applications of Genetics and Biotechnology in Agriculture, Forestry, Animal Science and Fisheries’, by Dr Pramod N. Nair, Assistant Professor in Genetics & Plant Breeding, on 23rd October 2020.
2. ‘Genomics and Biotech Applications in Forestry’, by Dr. Chien-Chih Chen, Assistant Professor in Forestry, on 30th October 2020.
3. ‘Vermiculture for Sustainable Agricultural Development in Fiji Islands’, by Dr Sachchida N. Rai, Assistant Professor in Entomology, on 6th November 2020.
4. ‘The Impact of Quantum Computing on Cryptography’, by Dr Maheswara Rao Valluri, Associate Professor in Mathematics, on 11th November 2020.
5. ‘Narrative Methods in Humanities and Social Sciences Research’, by Professor Sky Marsen from Flinders University, Adelaide, South Australia, on 8th October 2020 via Zoom.
7. ‘Quantitative Research Design: Experimental and Non Experimental Surveys in Humanities and Social Sciences Research’, by Dr Taravini Raiula and Dr Sofia Ali, on 22nd October 2020.
8. ‘Managing Sponsored Research’, by Dr Rup Singh, Head of Economics, The University of the South Pacific, on 7th October 2020.
Journal Publications

Congratulations to FNU colleagues who published the following Q1, Q2 and Q3 journal papers:


Upcoming Webinars

Title: New Trends and Future Directions in Catalysis
Presenter: Professor Frances Arnold, Linus Pauling Professor of Chemical Engineering, Bioengineering and Biochemistry, and Director of the Donna, Lutz Ackermann, Professor at the Georg-August-University Göttingen, Corinna Schindler, Associate Professor at the University of Michigan and Douglas W. Stephan, Professor at the University of Toronto.
Date: 4 Dec, 2020
Time: 10am AEDT
Link: https://www.brighttalk.com/webcast/16651/453474
Title: Clinical Cases & Social Media: Tips &
Upcoming Webinars

Techniques
Presenter: Dr. Julia Grapsa, Editor-in-Chief, JACC: Case Reports and Dr. Mary Norine Walsh, President, American College of Cardiology.
Date: 4 Dec, 2020
Time: 2pm AEDT
Link: https://researcheracademy.elsevier.com/workshop/9cd922ad-cc4f-40b8-870f-b3f735112299
Title: How to publish in groundbreaking Journals
Presenter: Steve W. Cranford, Editor-in-Chief, Matter.
Date: 5 Dec, 2020
Time: 10am AEDT
Link: https://researcheracademy.elsevier.com/workshop/8350bb75-7dce-41b5-b64f-6109579de5e1
Title: Techniques for Publishing in Transformative Ground-Breaking Journals
Presenter: Dr. Lewis Collins, Editor-in-Chief, One Earth
Date: 5 Dec, 2020
Time: 2pm AEDT
Link: https://researcheracademy.elsevier.com/workshop/7783d0ae-2a33-49b6-a429-78abd14e5f4e
CMNHS Virtual Symposium
Title: Pacific Islands Health Research Symposium 2020
Date: 3rd to 5th February 2021
Venue: Virtual
Theme: Health Security in the Pacific: Lessons from the Pandemic Experience
Link: https://www.fnu.ac.fj/college-of-medicine/fiphr/research-ethics/chhrec/

Call for Papers

1. Tertiary Education Policy and Management Advances in Pacific Islands by Taylor and Francis
This special issue of the Journal of Higher Education Policy and Management (JHEPM) will explore the ways in which tertiary education systems are continuing to evolve within and across Pacific Island countries. The journal is interested in expanding knowledge of ways to achieve effective tertiary education systems in small countries that are tackling global issues.

Deadlines
Abstract submission* (up to 500 words): 15 December 2020
Notification of acceptance: 15 January 2021
Submission of full paper for review: 31st March 2021
Submission of final papers: 31st May 2021
Likely Publication Issue: October 2021

2. Journal of Micro and Nano-Manufacturing
This Special Issue is looking for contributions on a wide range of topics ranging from new ways of conducting science away from the lab and description of novel manufacturing processes that have been thought up while away from the labs, to the proposals of new remote ways of teaching manufacturing classes, to biomanufacturing processes related to COVID-19 diagnostics. The Special Issue seeks technical papers, such as simulation-based research or artificial intelligence-enhanced manufacturing, as well as some reflective opinion pieces on the impact of the current health crisis on the future of our micro- and nano-manufacturing field.

Publication Target Dates
Paper submission deadline: 15th December 2020
Initial review completed: 31st January 2021
Special Issue publication date: 31st March 2021
URL: https://asmedigitalcollection.asme.org/micronanomanufacturing

3. Journal of Mechanisms and Robotics
This Special Section is intended to provide a platform for sharing and presenting new research and solutions for Mobile Robots (MRs) and Unmanned Ground Vehicles (UGVs) in field and service applications. In the last few years, the adoption of field robotics has rapidly increased, with many notable examples that have been developed and validated for operations on the ground (of Earth or planets), under the ground, underwater, in the air, or in space. Applications range from agriculture, mining, surveillance, and environmental monitoring, to search and rescue and disaster relief, planetary exploration, and nuclear power plant operations.

Publication Target Dates
Paper submission deadline: 15th January, 2021
Review process: January - May 2021
Final papers due: 1st June, 2021 online issue
Print publication: October 2021 issue
URL: https://asmedigitalcollection.asme.org/mechanismsrobotics
4. The American Society of Mechanical Engineers (ASME)

This Special Issue aims at raising awareness on the emerging topic of well-being in the built environment. It will focus on interdisciplinary research in this field – and will provide a venue for research findings from a variety of disciplinary perspectives.

Publication Target Dates
Paper submission deadline: 1st February 2021
Papers reviewed and revised: 1st July 2021
Production process: August - October, 2021
Special Issue publication date: November 2021

URL: https://asmedigitalcollection.asme.org/sustainablebuildings

b. Journal of Energy Resources Technology
This Special Issue aims at attracting cutting-edge research and review articles on ‘energy storage technologies and applications’ for both thermal and electrical applications.

Publication Target Dates
Paper submission deadline: 28th February 2021
Initial review completed: 31st March 2021
Special Issue publication date: 31st May 2021

URL: https://asmedigitalcollection.asme.org/energyresources


i. Special Issue on Autonomous Vehicle Technologies: Risk, Resilience, and Reliability (SI049B)
This Special Issue is aimed at gathering contributions that discuss new theoretical developments and advanced applications of risk, reliability, and uncertainty assessment to support the management of autonomous vehicle technologies. More specifically, the Special Issue is soliciting papers discussing traditional deterministic, probabilistic, machine learning, and hybrid approaches to risk assessment across all lifecycle events of autonomous technologies. Interpretation and insights gained from the implementation of risk-informed frameworks are also encouraged at various levels of maturity and discussion, from philosophical and ethical standpoints. An account of the data - and uncertainties around the collection of such data - required for successful assessments, along with novel solutions to encounter such challenges, is welcome. Predictive analytics towards prognostic health management, techno-economic analysis, and loss prevention of autonomously engineered systems are also of interest.

Publication Target Dates
Paper submission deadline: 1st March 2021
Initial review completed: 1st September 2021
Special Issue publication date: 30th April 2022

URL: https://asmedigitalcollection.asme.org/risk

CANDIDATURE CONFIRMATION
Twelve Higher Degree by Research candidates enrolled in the new HDR programmes from the College of Humanities and Education will be presenting their research proposals for candidature confirmation to a panel of four people on 10 and 11 December.

Season's Greetings

Merry Christmas & Happy New Year

Office of the Pro Vice Chancellor Research staff wishes the FNU community a Merry Christmas, Happy Holidays, and a healthy and prosperous 2021.