Joint QuakeCoRE IP4 and IEEE ISGT-ASIA 2023 Technology Megatrends Workshop to Seismic Sciences

A joint QuakeCoRE IP4 and IEEE ISGT-ASIA 2023 Technology Megatrends Workshop to Seismic Sciences, was spearheaded by Associate Professor Nirmal Nair and Dr. Garry McDonald, with the assistance of Dr. Yuan Liu.

Held in the Science resource centre, the university of Auckland, Auckland, New Zealand, on Tuesday, 21 November 2023, this full-day event proved to be highly successful, thanks to the valuable contributions from presenters and attendees.

The morning session commenced with Associate Professor Nirmal Nair providing an overview of the IP4 2023, highlighting funded activities, achievements, and the introduction of newly funded PhDs, etc. Following this, a one-and-half hour panel session on "**Renewable Distributed Energies and Electric Autonomous Transportation to Seismic Sciences**" took place. Final-year PhD candidate Xin Liu presented his research topic, "**Extended Morlet Wavelet-Based FIR Phasor Estimation Using Fake Samples**", followed by first year-PhD Eric Sauvage's presentation "**Integrated telecommunications and electricity assessments for response to natural disasters**". Research fellow Dr. Yuan Liu conclude the session with a presentation on her PHD topic and her future research related to QuakeCoRE IP4 program.

In the afternoon, one more one-and-half hour panel session on "**Technologies of smart cities and real-time sensing to seismic resilience**". Associate Professor Kevin Wang initiated the session with a talk on "**Machine learning and artificial intelligence for hazard resilience**", followed by Senior research fellow Dr. Ho Seok Ahn gave us a speech on "**Social Human-Robot Interaction Resilience**". Senior lecture Dr. Yang Zou conclude the session by providing updates on "**Automated and Data-driven Infrastructure Management Using Emerging Technologies**". Both the presenters and the audience engaged in lively discussions during the Question and answer part.

Associate Professor Nirmal Nair delivered closing remarks, summarizing future plans for 2024, funding applications and promotions of researchers to AI, etc. The entire workshop was funded by QuakeCoRE and IEEE PES ISGT-ASIA 2023.