

## IEEE Malaysia Section Newsletter IEEE Instrumentation & Measurement Society (IEEE IMS)

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### Technical Talk: PiezoMEMS Design, Fabrication & Characterization.

The UNIMAP, School of Microelectronic Engineering (SoME), has hosted a Technical Talk : PiezoMEMS Design, Fabrication & Characterization on the 1st of Oct 2019. The invited speaker was Dr. John Tan Teng Hwang, Principal Engineer, SiTerra Malaysia (representing IEEE IMS Malaysia Section). This technical talk was also in conjunction with IEEE Day at UNIMAP. In the era of Industry Revolution 4.0 and 5G emerging technology, Micro-ElectroMechanical System sensors play a vital role to enable Internet of Things applications such as smart city, smart grids and smart health monitoring. MEMS sensors are widely employed in various latest technology products including wearable, mobile phones, drones and autonomous vehicles. Due to the strong demands of MEMS sensor in the market, there is a need to further reduce the manufacturing cost without compromising on the sensor's performance. In this talk, Dr. John Tan presented the Piezoelectric based MEMS technology: Design, Fabrication & Characterization. PiezoMEMS technology with Aluminium Nitride (AlN) material has enable the fabrication of MEMS sensors with the integration of CMOS. *Reported by: Dr. John Tan Teng Hwang*



Top: Group photo of the participants and invited speaker.

Right: IEEE EduTour 2019 to Ho Chi Minh City University of Technology

### Workshop on Python for Data Science

IEEE IMS Malaysia in collaboration with ATES Sdn. Bhd. have organized a 3-day technical workshop on Python for Data Science from 19 until 21 November 2019. The workshop was held at BATC Lodge, Universiti Teknologi Malaysia Kuala Lumpur. Python is an interpreted object-oriented high-level programming language and is becoming more popular for analysing datasets and conducting data science processes. The course outcomes of this workshop are 1) to explore Python language fundamentals including basic syntax 2) to use functions and import packages Build Numpy arrays, and perform interesting calculation and finally 3) to work with files and real data Data Analysis and Data Visualization. *Reported by: Dr. Robiah Ahmad*

### Educational Visit to the Ho Chi Minh City University of Technology

Our society has organized an educational visit to Ho Chi Minh City on 28 Nov - 2 Dec 2019. This IEEE EduTour 2019 is an annual activity conducted by our society and this year we have visited Ho Chi Minh City University of Technology on 29 Nov 2019 . The group comprising five academic staff from Mechanical and Electrical Engineering, UTM, IUM and UniKL. The visit was to discuss any potential future collaboration in academic and research, student's mobility program, postgraduate supervision and exchange students. *Reported by: Dr. Intan Zaurah Mat Darus*

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### Final Year Project Seminar Presentation in International Islamic University Malaysia

The Electrical and Computer Engineering Department, Kulliyyah of Engineering, International Islamic University Malaysia (IIUM) has organized a Final Year Project seminar presentation on 24<sup>th</sup> December 2019. One of the objectives of the seminar presentation are to bring research and design theory into practice among UG students. An IEEE IMS Malaysia Section representative also came to be one of the panel judges. Two winners for projects based on instrumentation and measurement were selected. The awarded projects are Energy Autonomous Intelligent Water Metering by Kathir Tahasin and Operation and Control Scheme of a Five Level Hybrid Inverter Medium Voltage by Basem Jamil Ali Hour. The winners received RM150 prize money and a Merit Certificate and RM100 prize money and a Merit Certificate respectively. *Reported by: Dr. Farah Diyana Abdul Rahman*

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