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REDEFINING ENGINEERING

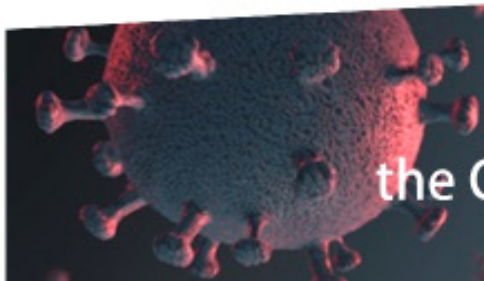


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Special topic:
**E-Learning, COVID-19,
the Challenges and Way Forward**



welcome

COLLEGE OF ENGINEERING

BULLETIN TEAM

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Community

Smart Physio-Treadmill (PhyMill) to aid patients in training their walking movements



According to the project leader, who is also lecturer at the Department of Mechanical Engineering, Ts Dr Mohd Azrul Hisham Mohd Adib, PhyMill is an automatic exercise device to train walking movements for patients undergoing treatment. Dr Mohd Azrul explained that PhyMill is also designed specially to help therapists rehabilitate patients during physiotherapy sessions, especially involving movements in the lower extremities or lower body parts.

The development of this product was achieved with assistance and advice from a physiotherapy expert in Kuantan Physical Therapy-Physiotherapy Centre, Dr Narimah Daud.

"The fusion of ideas between physiotherapy experts and researchers highly simplified the creation of PhyMill, allowing it to be more user-friendly and fulfil the patients' needs," Dr Mohd Azrul said in the PhyMill Handing-Over Ceremony on 17 January 2020 in Kuantan, for use by the centre. He further added that its small size allows portability according to the patient's needs and requirements. PhyMill was developed jointly by Rehab Team from the Department of Mechanical Engineering, College of Engineering and Faculty of Mechanical and Automotive Engineering Technology in Pekan, assisted by Dr Nurul Shahida Shalahim, Idris Mat Sahat, Dr Zakri Ghazalli, Dr Muhammad Hilmi Jalil, and graduates under the Integrated Design course.

Uplifting communities through digital literacy



Assoc. Prof Ir Dr Nurul Hazlina Noordin

Assoc Prof Ir Dr Nurul Hazlina Noordin of Electrical Engineering department together with her colleagues have setup a Science, Technology, Engineering and Mathematics (STEM) Laboratory and started to engage with the community. According to Dr Hazlina, the education transformation generally begins with DIGITIZATION in education, involving the way

how knowledge is taught and preserved. Today more learning materials are converted into digital formats, and larger amount of information are available through digital learning using a variety of technical tools. A greater number of information can be displayed, and numerous creative animated learning materials covering theoretical knowledge such as, Science and Engineering Concepts are presented in a more interesting and interactive way.

Dr Hazlina and her team believe that early exposure would ignite interest among the youngsters to take up STEM in their future and cultivate innovators mindset. Essential skills that would equip knowledge among young millennials include Robotics, Embedded Systems and Coding. These domains have become

regular platforms in today's inventions. UMP STEM Laboratory modules are carefully crafted out to nurture their interest to be innovators. Throughout UMP STEM Laboratory Outreach Programme, pre-schoolers and early primary school children were introduced to the technology with fun and interactive activities. At this stage, the emphasis is more into defining the technology, which answers the "WHAT" questions.

