KKEJ BULLETIN

REDEFINING ENGINEERING

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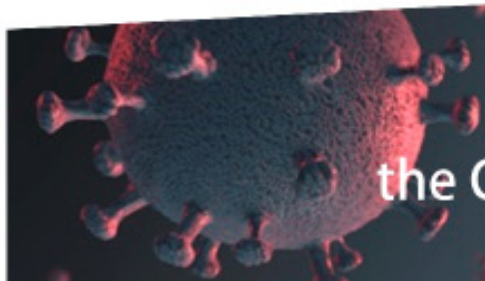
welcome

COLLEGE OF ENGINEERING

BULLETIN TEAM

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E-Learning , COVID- 19, the Challenges and Way Forward

ONLINE LEARNING
E-Learning@UMP

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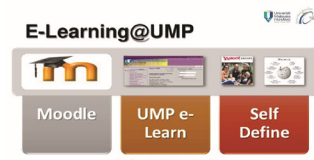
The COVID-19 pandemic has shifted many existing practices into new compelling norms, where other universities also shared the same experience. The education sector is forced to shift their teaching to e-learning and blended modes. Even before COVID-19, these style of teachings have been adopted, but not well adapted by many academics. With the pandemic not showing any slowdown, academics and students have to adapt to this rapid change. This has generated several challenges and opportunities for both parties, academics and students.

Malaysia had implemented the Movement Control Order (MCO) on 18 March 2020. Since then, all universities in Malaysia have been affected. Universities are vacant, lecture rooms are empty and laboratories use is minimised, few of the measures considered to help the country flatten the pandemic curve. Amidst all unexpected and unprecedented crises, universities have responded with great flexibility. Lecturers and supporting staff have moved to new ways of operation in a matter of days. Universiti Malaysia Pahang has moved forward to the transition of teaching and learning by utilising online platforms. The online trainings were organised by CIREL and taught by specialists in the related fields.

Here are some trainings and talks held since mid-March 2020:

- Conducting Virtual Classes using WebEx, Zoom and Google Meets
- Loom and Microsoft Stream

- Designing Digital Assessment in KALAM
- Optimising Accessibility Features in iPad
- Sustaining Motivation for Productivity During MCO
- E-Assessment: From Transition to Transformation.

Teaching staff in UMP especially in College of Engineering have used many online platforms to cater the needs of the students during the pandemic. There has been a significant surge in the usage of Video Conferencing Tools including Zoom, Google Hangouts Meet, UberConference, Cisco Webex Meetings and Skype. Online Learning Management System (Moodle, Google Classroom, SkyPrep, Tovuti, Prosperity LMS, etc.) and virtual tutoring tools (YouTube, virtual whiteboard, Screencast-O-Matic, etc.) are aditionally used to complement the Video Conferencing Tools. The implemetation can be both synchronise and asynchronise to suit their students' needs.

Online Education

The Table below shows the numbers of blended learning in College of Engineering, UMP. To achieve blended learning mode, each of the courses need to upload certain number (but not limited to) of materials in the Learning Management System. UMP uses Moodle Management System called KALAM. The materials and the quantity are: [1] Course Info (n=1), Learning Materials (n=7), Online Activities (n=3), and Online Assessments (n=2).

Mode Blended Learning Achievement for College of Engineering (as of 17 August 2020)

		Percentage
Courses Offered	277	100 %
Courses Approved for Exemption	0	0 %
Courses Calculated	277	100 %
Courses Calculated Achieving Blended Learning Mode	237	85.6 %
CAP PSPTN Blended Learning Mode Target	208	75 %
Courses Offered Not Achieving Blended Learning Mode	40	14.4 %

The data shows significant efforts and practices have been done in online teaching and learning among College of Engineering staff. However, there are still some drawbacks of this current practices, such as little efforts to adapt with the new e-learning environment among few academics and students, limitations of internet bandwiths and other technical problems. As a way forward, there should be a strategic plan to restructure the educational system and use the current practice of E-Learning to blend it with face-to-face learning for specific competency learning activities. However, the staff are always committed to provide educational continuity so that students can graduate and get employed. UMP academics will always commit to the university mission to "Provide world class education, research and services in an ecosystem of creative and innovative engineering and technology to maximise human potential for societal good."