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Application Form

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INTERNATIONAL SUMMER COURSE ON HUMANITARIAN ENGINEERING:

THE ROLE OF ENGINEERS AND SCIENTISTS DURING PANDEMIC ERA

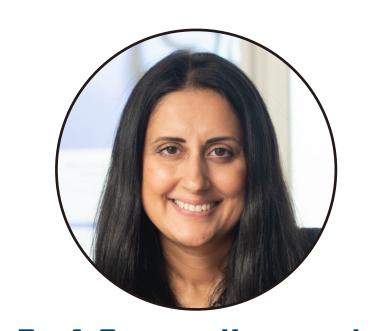
5-17 July 2021

The lectures will be held virtually using Zoom

Course Description



This summer course is targeted for Undergraduate and Graduate Students who have background or encouraging their enthusiasm in the study of engineering (in all departments/subjects) and scientists, especially those who are interested in the role of engineers during pandemic era of COVID-19. In addition, students who willing to broaden their window of knowledge into cross-discipline and inter-discipline in terms of humanitarian engineering are also welcome. Working people/ practitioner who are interested to participate in the event are very most welcome. The course will be transferable and equivalent to 3 credit units. Thus, all of participants are required to attend minimum 80% of courses, and to take the assessment (quiz) of each courses to get the certificate of attendance.



Prof. Georgia Kremmyda (University of Warwick, UK) Challenges and opportunities in **Engineering Higher Education in** the pandemic era



Prof. Takayuki Suzuki (Yokohama National University, Japan) **Cross-shore Sediment Transport** in the Nearshore Zone



Prof. Juliana Sutanto (Lancester University, UK) Interdisciplinary Collaborations with Engineers to Create Impact



Dr. Marfiah binti Ab.Wahid (Universiti Teknologi MARA, Malaysia) Sustainable Solid Waste Management in Malaysia



Dr. Wolfgang Bruestle (Professional, Germany) Seismology and Earthquake Hazard



Dr. Hazrina Mansor (Universiti Teknologi MARA, Malaysia) The impact of COVID-19: How engineers are making a difference?



(NTU, Singapore) Inhaled Therapy for Superinfection in Covid-19 Patients (keywords: lung infection, pulmonary drug

delivery)



Dr. Danang Sri Hadmoko (Universitas Gadjah Mada, Indonesia) Indonesia As Volcanic Islands:



Dr. Effendi Wijaya (MNC Pharmaceutical, Singapore) Working From Home As A Scientist Or Engineer During

Covid-19 Pandemic



Assoc. Prof. Dr.-Ing Masria Mustafa (Universiti Teknologi MARA, Malaysia)

Woman and Mobility: Mind the

Gap!



Prof. Muhammad Aziz (Tokyo University, Japan) Blessing in Disguise: Accelerating

Innovative and Adaptive Ideas in

Energy Sector Following COVID-



Ir. Dr. Julian Lee (Cinnotek International, New Zealand) The Impacts of COVID-19

Pandemic on the Construction

Industries and Acceleration of



Dr. Vu Van Nghi (Ho Chi Minh University of Transport, Vietnam)

Challenges and Opportunities for

engineers post COVID-19





Dr Irnia Nurika (Universitas Brawijaya, Indonesia) Integrated Biorefineries for Circular Green Economy



Engr. Mohd Rizal Ahmad Current Practice for Crossing, Retainment & Protection of Slopes



Prof. Radianta Triatmadja (Reinforced Earth Malaysia SDN BHD) (Universitas Gadjah Mada, Indonesia)

Improving Tsunami Preparedness In Indonesia



Assoc. Prof. Chan Chee Ming (Universiti Tun Hussein Onn Malaysia) **Application of Dredged Marine** Soil for a Sustainable Construction



N.V. Kumaran (Bina Initiatives Sdn Bhd, Malaysia) **BIM Integration For Post** Pandemic Construction



Dr. Eko Agus Suyono (Universitas Gadjah Mada, Indonesia) Microalgae Biorefinery For Sustainable Development



A Perception On Roles And

Activities Of Indonesian Engineers

During Covid-19 Pandemic

(University Of Illinois, USA) New Advancements And Challenges In Pavement Engineering

Dr. Issam Qamhia



Assoc Prof Dr Muhammad Hussain Ismail (Universiti Teknologi MARA, Malaysia)

Reimagining Plastic During Pandemic COVID 19: The Story of UiTM Faceshield



(Universitas Gadjah Mada, Indonesia) Invention of GeNose to detect Covid-19 in Indonesia



(Institute of Chemical and Engineering Sciences, Singapore) Sustainable COVID-19 Vaccine Supply Chain?

Dr. Iskandar Halim



Prof. Krishna Suryanto Pribadi (Institut Teknologi Bandung, Indonesia)

Post Disaster Housing Reconstruction during Covid-19 Pandemic



Assoc. Prof. Dr. Norshuhaila Dr. Angzzas Sari Mohd Mohamed Sunar (Universiti Tun Hussein Onn

Malaysia) Bioremediation technology for wastewater treatment: Phycoremediation strategies and

potentials



Kassim (Universiti Tun Hussein Onn Malaysia)

Human Engineering: 'Mind' Your



Ts. Dr. Nur Hashimah Alias (Universiti Teknologi MARA, Malaysia) Exploring the potential of

photocatalytic nanofiber in the

treatment of wastewater



Learning Outcome

After completing the summer course, students are expected to be able to:

- 1. Understand basic knowledge on how to manage health service and public activities during pandemic era from engineers/scientists point of view.
- 2. Understand and analyze technical information and evaluating.
- 3. Identify the response on pandemic, trauma healing, and postpandemic era from engineers/scientists point of view.
- 4. Understand social condition, economy and culture of the society during pandemic era, then able to assess the future challenges post-pandemic era.
- 5. Have the capabilities to collaborate cross-disciplinary and inter-disciplinary in the background of humanitarian engineering. 6. Some of the courses may not be related to the pandemic but
- contribute to fulfill the overall learning outcome.

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Method and Output

The Summer Course is held with the combination several activities:

- 1. Online lectures and quiz.
- 2. Asynchronous activity by group discussion.
- 3. Group presentation after completing the lectures.
- 4. Students are able to have further correspondence with professors and supervisors for their own-project, jointresearch, thesis supervision and or joint publication.

Partner Organizations:





















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