WEBINAR TALK ON

OPTIMAL CONTROL OF CANCER CHEMOTHERAPY WITH STATE CONSTRAINTS

BEM APPROVED CPD: 2   REF NO: IEM23/HQ/534/T (w)

ORGANISED BY: ENGINEERING EDUCATION TECHNICAL DIVISION, IEM

SPEAKER:

Ir. ASSOCIATE PROF. DR. JEEVAN A/L KANESAN

📅 22 DECEMBER 2023, FRIDAY

🕐 9.00AM - 11.00AM

Registration:

IEM STUDENT : FOC
IEM MEMBERS: RM15
NON IEM MEMBERS: RM70

SYNOPSIS

Cancer is one of the major diseases that has been emerged as the second highest cause of death among Malaysians in 2019. The choice of cancer treatment depends on the tumor location, the disease stage and also the patient's health condition. Chemotherapy works like a two-edged weapon which it exterminates the cancerous cells and at the same time damages the normal cell.

Thus, chemotherapy treatment planning was studied as an optimization problem by using a mathematical model as this method provides a low cost plan to evaluate the treatment strategies more effectively. The performance of optimal control model relay on the control variable such as chemotherapeutic drug and predetermined objective such as minimize the tumor volume and the drug toxic effect.

SPEAKER'S PROFILE

JEEVAN KANESAN received the degree in electrical engineering from UTM, in 1999, and the M.Sc. and Ph.D. degrees from USM, Penang, in 2002 and 2006, respectively. He joined the Department of Electrical Engineering, Universiti Malaya, in 2008. He worked as an Engineer at Carsem Semiconductor, Ipoh, before resuming his master's degree. After obtaining his Ph.D. degree, he worked as a Research and Development Engineer at Intel, Penang, for two and half years.

Currently, he has published more than 70 peer-reviewed journals. His research interests include optimization and machine learning.