



UTM
UNIVERSITI TEKNOLOGI MALAYSIA



Number 111
Professorial
Inaugural Lecture Series

ITINERARY PROGRAMME

- 2.00 pm : Arrival of Guests
- 2.30 pm : Procession into the Hall
: National Anthem
: Dua' Recital
- 2.40 pm : Opening Remarks & Introduction
by Assoc. Prof. Dr. Shafinaz binti Shahir
Deputy Dean (Academic & Student Affairs)
Faculty of Science
- 3.00 pm : Professorial Address
by Professor Dr. Nor Haniza Sarmin,
Faculty of Science
- 4.00 pm : Review Session
by Assoc. Prof. Dr. Fong Wan Heng
- 4.15 pm : Q & A Session
- 4.30 pm : Souvenir Presentation
: End of session



The Journey of
DNA Splicing System -
from Biology,
to Computer Science,
to Mathematics

Professor Dr. Nor Haniza Sarmin

24th August 2022
(Wednesday) | 2.30 pm
Dewan Senat Ainuddin Wahid

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ABSTRACT

The mathematical modelling of DNA splicing system has first been introduced by Tom Head in 1987 which is simulated by the technique of recombinant DNA molecules that relies on restriction enzymes in the study of formal language theory. In this talk, variants of splicing models that have been developed over the years will be presented. Furthermore, the splicing systems will be shown as graphically represented using the concepts of automata. Lastly, molecular works for splicing systems which are conducted through wet-lab experiments will be shared to validate the existence of splicing languages.

BIOGRAPHY

Dr Nor Haniza Sarmin (Prof Niza) is a professor in the Department of Mathematical Sciences, Faculty of Science, Universiti Teknologi Malaysia (UTM) Johor Bahru, Johor. She received her BSc (Hons), Master and PhD in Mathematics from State University of New York at Binghamton, New York, USA. Her specialization of research is in Group Theory, Graph Theory, Formal Language Theory, Splicing Systems, and Their Applications.

She has written more than 500 research papers in national and international journals and proceedings, mainly in the area of group theory and splicing systems. She has also supervised and graduated 38 PhD students, 25 masters students and 85 undergraduate students. This includes the Youngest PhD Holder in Malaysia Book of Record 2014, Dr Hazzirah Izzati Mat Hassim.

Prof Niza has secured more than 20 research grants as the Research Leader and more than 25 as the research collaborator. She was holding the position of the Head of Postgraduate Department in Faculty of Science from 2007-2012, the Deputy Dean in the School of Graduate Studies UTM from 2012-2016, the Director (Global Education and Student Experience) in UTM International from April 2016 – 31 March 2018 and later the Associate Director (Student Services and Global Education Experience) from 1 April 2018 – 14 August 2019. Now she is holding the post of the Associate Director (Global Strategy and Engagement) starting from 15 August 2019 until 31 December 2022.