



**UPM**  
UNIVERSITI PUTRA MALAYSIA  
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# INSPEM WEEKLY SEMINAR

11/2019

## Date & Time

15 March 2019, Friday @ 3.15 pm

## Venue

Al-Farabi Seminar Room, Second Floor,  
INSPEM

## Presenter

Zurita Ismail

Research Officer, Laboratory of Computational Sciences  
& Mathematical Physics, INSPEM



## Topic

**Community Structure in Graphs -  
Case Study of UPM Co-authorship Network from 2007-2010**

## Abstract

Community structure is a typical structure found in social networks. A community (cluster or module) is a part of a network (group of nodes) where internal connections are denser than external ones. Uncovering communities helps us to understand the structure of the network, to identify cohesive subgroups and to draw a readable map of the network. Using the first four years period UPM Research University dataset from 2007-2010 in journal publications, we constructed a co-authorship network representing collaborations between authors and coauthors. We apply different community detection techniques in order to examine the structure of the co-authorship network dataset.

Keywords: Graph Theory, Complex Networks, Social Networks, Community