UNIVERSITI PUTRA MALAYSIA
BERILMU BERBAKTI

INSPEM WEEKLY SEMINAR

4/2018

Date & Time

26th January 2018, Friday @ 3.15 pm

Venue

Al-Farabi Seminar Room, Second Floor, INSPEM

Presenter

Nik Amir Syafiq Nik Mazlan
(Post-graduate student,
Laboratory of Computational Sciences and Mathematical Physics)

Topic

A Hybrid Based AOR-MSOR Iterative Method

Abstract

In this research, we proposed a new preconditioner scheme to solve the two-dimensional Poisson problem with Dirichlet boundary condition. A family of finite difference approximation, specifically the Full-Sweep (FS), Half-Sweep (HS) and Quarter-Sweep (QS) iterative methods were used to discretize the problem. Different preconditioner schemes were applied together with the iterative methods which assists in solving the problem in a faster and accurate manner. An experiment was conducted and the results were compared. The results shows the superiority of the proposed method.