



TIME-DEPENDENT MONTE CARLO SIMULATION METHOD FOR NUCLEAR REACTOR TRANSIENT ANALYSIS



By **Dr. Nadeem Shaukat**

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At 14:00 hrs In PIEAS Lyceum All are cordially invited Contact Person: Dr. Masroor Ikram,

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Dr. Nadeem Shaukat obtained his PhD in Nuclear Engineering from Seoul National University, South Korea. His PhD dissertation title "Effective Realization of Time-Dependent Monte Carlo (TDMC) Simulation for the Transient Analysis of Nuclear Reactors", focused on TDMC neutron tracking for the transient analysis requires efficient algorithms for delayed neutron generation, neutron population control, and modeling of initial conditions. In this study, he proposed a new MC steady-state simulation method based on the TDMC neutron tracking for the steadystate initial condition modeling from which prompt neutron sources and delayed neutron precursors for the MC transient simulation can be easily sampled.

Dr. Nadeem currently joined DGRE, PAEC HQ, after successful completion of his doctoral degree. He obtained M.S. degree in Nuclear Engineering from PIEAS and obtained M.Sc. degree in Mathematics from University of the Punjab, Lahore.

He has about 9 years' experience in the field of Reactor Physics code development.