

Faculty Name:	Prof. Shafigul Islam Bhuiyan
Education:	<ul style="list-style-type: none"> ➤ MS Degree in Nuclear Physics as major, BS with honors from University of Dhaka, 1975. ➤ Ph.D from University of Dhaka in 1986. ➤ Post- doctoral work at NDS/IAEA in 1991 and at ORNL, USA in 1996.
Academic experience:	<ul style="list-style-type: none"> ➤ ENDF data Processing, Customization, Evaluation, and Validation; Neutronics; ➤ Reactor Safety Analysis, In-core Fuel Management; Infrastructure Development for NPP. ➤ Participated in 50 International Seminar/Symposium/Wrkshops/Meetings, ➤ Key-note Speakers, PI/National Counterpart of 10 IAEA/FNCA projects, ➤ Served in a number of International Technical Committees; consultant IAEA Nuclear Data Section and UN IAEA Expert Services, 110 publications, ➤ Developed Neutron and Reactor Shielding Materials (two patents), Editor of an International Journal, ➤ Technology Transfer and Localization program on development of computer codes for Reactor Engineering Research, and Nuclear Power Program Development. ➤ Supervised 7 MS and 3 Ph.D Thesis.
Current membership in professional organizations	<ul style="list-style-type: none"> ➤ American Nuclear Society
Service Activities	<ul style="list-style-type: none"> ➤ Member of several department committees ➤ Member of several departmental and faculty committees in Bangladesh
Publications & presentations from the past five years	<ol style="list-style-type: none"> 1. M.Q. Huda and S.I. Bhuiyan, “Burnup Analysis and In-core Fuel Management Study of the 3 MW TRIGA MARK II Research Reactor”, Journal of Annals of Nuclear Energy, 35 (2008). 141-147. 2. M.M. Sarker, S.I. Bhuiyan, S. Bosu, M.T. Chowdhury “A comparative study of WIMSLIB group constants processed through NJOY’99 from ENDF/B-VI and JENDL-3.3 for 20Ca, 12Mg, 15P, 16S, 14Si, and 23V, Progress in Nuclear Energy, Volume 49 (2007) 529-533. 3. M.M. Sarker, S.I. Bhuiyan, M.M. Akramuzzam, Neutronics analysis of the 3 MW TRIGA Mark- II research reactor by using SRAC code system, Annals Of Nuclear Energy, vol 35, Issue 6, P 1140, June 2008 4. M J H Khan, M Rahman, F U Ahmed, S. I. Bhuiyan, A Haque and A Zulquarnain, “Shield design of concrete wall between Decay Tank room and primary pump room in TRIGA facility” The Journal of Radiation protection. Vo.32 No.4, December 2007.

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5. S.I. Bhuiyan, Chakroborty, T.K., Khan, M.J.H., Monlal, M.A.W., Rahman, M., Sarker, M.M., "WIMS-D Library Update", International Atomic Energy Agency, ISBN 92-0-105006-2, 2007.
 6. S. I. Bhuiyan, "Nuclear Power-An Inevitable Option for Sustainable Development of the Developing Nations to Meet the Energy Challenges of the 21st Century" International Journal of Nuclear Governance, Economy and Ecology, Vol 2, N4, January 2009.
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Professional development activities

1. Development and Implementation of Computer codes for Nuclear Engineering Research in Bangladesh.
 2. Technology Transfer for Nuclear Engineering Research in Bangladesh in the field of Reactor Design and Analysis, In-core Fuel Management, Reactor Safety Studies, Thermal Hydraulics & Accident Analysis, Shielding and Radiation Protection. Also the Nuclear Data Technology for Generation, Validation, and Evaluation of problem dependent cross section library from Basic ENDF data.
 3. Establishment of the Methods, Tools & Techniques for Upgrading the Core Configuration of the TRIGA MARKII Research Reactor. The current core designed by General Atomics, USA has been redesigned upgrading with two more additional irradiation channels, which will triple the current capability for isotope production.
 4. Establishment of a state-of-the-art computer network with SUN ULTRA ENTERPRISE 450 Server (64-bit RISC Processor) under SUN SOLARIS 2.6 and DEC 3000 Advantage Server under OPEN VMS that facilitates high end ultra computing.
 5. Development of Methods for neutron transport based on Sensitivity Theory with supporting data bases and successful applications in practical Shielding and Reactor Physics Problems.
 6. Development of Radiation Shielding Material and Related Technology.
 7. Patent of Poly-Boron and Ilmenite –Magnetite Concrete.
 8. Organized a Shielding Experimental Lab, series of neutron and gamma-ray shielding experimental set-ups around the TRIGA reactor beam port, ^{252}Cf , ^{60}Co , and 14 MeV Neutron Generator
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