Curriculum Vitae

PERSONAL INFORMATION

Igor Lengar

WORK EXPERIENCE

1998 –	**Senior Research associate** Jožef Stefan Institute, Reactor physics division
04/2007 – 10/2007 07/2011 – 09/2011	**Postdoctoral researcher** Culham Centre for Fusion Energy (CCFE), JET – Joint European Torus, UK

EDUCATION AND TRAINING

2001 - 2004	**Ph.D. in nuclear engineering** **Thesis "Fast Neutron Dosimetry with the Coincidence Nuclear Track Detector CR-39"** University of Ljubljana, Faculty for Mathematics and Physics
1998 - 2001	**M.Sc. in nuclear engineering** **Thesis "Neutron Detection with a Pair of CR-39 Solid State Nuclear Track Detectors"** University of Ljubljana, Faculty for Mathematics and Physics
1991 - 1998	**B.Sc. in physics** **Thesis "Development of a laser with internal second harmonic generation"** University of Ljubljana, Faculty for Mathematics and Physics

ADDITIONAL INFORMATION

Professional Interests	- Main interest in transport calculations for fusion and fission reactors, mainly with the code MCNP. Involvement in several projects for the Joint European Torus in the last 8 years. Involvement in projects for DEMO. - Transport calculations for fission reactors, calculation of kinetic parameters for research reactors. - Head of the Jožef Stefan Institute team for the Zero power start-up physics tests at the Krško NPP, cycles 21, 22, 24, 25, 26, 27, 28 - Member of the Supervisory board of the Fund for Financing Decommissioning of the Krško Nuclear Power Plant and Disposal of Radioactive Waste from the Krško NPP (2005 - 2010) - Guest editor, Nuclear Engineering and Design
Projects	Project leader for several EFDA and EuroFusion projects, among others: - Upgrade of the JET MCNP model and transport calculations for a complete octant (EFDA, 2010) - Verification of the JET MCNP model and transport calculations, estimation of wall activation (EFDA, 2011) - Expansion of the Be-wall JET MCNP model to 360° and transport calculations (EFDA, 2012) - Upgrade of the 360° model of JET – Calculations, to support neutron yield calibration (EFDA, 2013) Other projects: - Upgrade of gamma ray cameras – neutron attenuator project (EFDA 2007-2011) - Experimental Verification of Kinetic Parameters of the TRIGA Reactor and the Upgrade of the Digital Meter of Reactivity - (CEA(France) - Reactions of high-energy ions in tissues like media and metals
Memberships	- Slovenian fusion association - Nuclear Society of Slovenia - Secretary General 2003 – 2007 - Member of International Criticality Safety Benchmark Evaluation Working Group (ICSBEP), OECD-NEA., http://icsbep.inl.gov/ - Independent reviewer of reactor physics benchmark experiment evaluations for IRPhEP (International Reactor Physics Experiment Evaluation Project), OECD-NEA., http://irphep.inl.gov/

Publications and Patents	List of publications, lectures and conference contributions upon request
Other Relevant Information	Teaching: - Lecturing the subject “Technology of Fusion Energy”, 1st year M.Sc. level, Faculty for Energy Technology, University of Maribor; cca. 25 students (2014) - Lecturing the subject “Fundamentals of Physics”, 1st year undergraduate level, Faculty for Energy Technology, University of Maribor; cca. 100 students per year (2008, 2009) - Lecturing at the Nuclear training centre of the Jožef Stefan institute