Thomas V. Holschuh II

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NUCLEAR RESEARCH EXPERIENCE

Sandia National Laboratories Undergraduate Intern
Advanced Nuclear Concepts – 06/2011 to present
Albuquerque, NM

- Performed extensive MCNP burn-up analyses for a long life sodium-cooled fast reactor design with an emphasis on safety limits.
- Operation of scaled S-CO_2 Brayton cycles in order to address turbomachinery issues and considerations for future commercial-sized power conversion systems.
- Creation of national conference and journal reports concerning both fast reactor conceptualization and realization of Brayton cycle technology systems.
- Developed correlations for windage and leakage losses in S-CO_2 turbomachinery within the Brayton cycle test loops.
- Provided recommendations for high temperature, radiation resistant strain gages and digital image correlation techniques in order to progress in-situ nuclear fuel diagnostics program.
- Reference: Dr. Gary Rochau, Department Manager, 505-845-7543, gerocha@sandia.gov

Undergraduate Research Assistant
Oregon State University – 09/2011 to present
Corvallis, OR

- Construction and operation of strain gage diagnostics at OSU Hydro Mechanical Fuels Test Facility (HMFTF), an NQA-1 facility that performs mechanical stress analyses on plate-type fuel assemblies.
- Production and maintenance of proper Quality Assurance documents for the HMFTF.
- Reference: Dr. Wade Marcum, Project Manager and Assistant Professor, marcumw@engr.orst.edu

Undergraduate Research Assistant
Oregon State University – 09/2010 to 06/2011
Corvallis, OR

- Evaluation of facility design for OSU High Temperature Test Facility (HTTF), a scaled version of DOE's Modular High Temperature Gas Reactor (MHTGR), using Siemens NX 3-D modeling software.
- Analysis of facility elements, including ceramic prototypes for the core material and reactor cavity cooling system.
- Reference: Dr. Brian Woods, Project Manager and Assistant Professor, brian.woods@engr.orst.edu

Sandia National Laboratories Undergraduate Intern
Fusion Technology Programs – 06/2010 to 09/2010
Albuquerque, NM

- Experience with CATIA modeling and OPERA electromagnetic (E&M) analysis software, used specifically to calculate the torque and forces present on the Test Blanket Module (TBM) for ITER.
- Contributing Graphs, Charts, and Proofreading to Mentor's Papers and Presentations.
- Analyzing and Compiling Test Data for Third-Party companies who use Sandia National Laboratory electron beam facilities.
- Reference: Dr. Richard Nygren, Department Manager, 505-845-3135, renygre@sandia.gov

Sandia National Laboratories High School Intern
Fusion Technology Programs 06/2007 to 09/2009