



Karlsruhe Institute of Technology

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To whom it may concern

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Takahide Yoshida's research stay at KIT/INR

This letter is to confirm Mr. Takahide Yoshida's research stay at the Karlsruhe Institute of Technology (KIT), Institute of Neutron Physics and Reactor Technology (INR). In October/November 2012 Mr. Yoshida spent two months at KIT/INR to conduct the neutronic analysis on the High Flux Test Module (HFTM) for the IFMIF (International Fusion Material Irradiation Facility) neutron source. He was supervised by Dr. Kondo of our Fusion Neutronics Group (FNG). The FNG has a long standing experience on neutronic analyses for IFMIF and has developed, among others, the McDeLicious Monte Carlo code for IFMIF neutronic analyses. The FNG is currently in charge of the development of the neutronic calculation model based on the latest IFMIF design of the so-called EVEDA (Engineering Validation and Engineering Design Activities) phase. At KIT/INR, we have conducted detailed neutronic analyses for the HFTM reference design, called HFTM-V, which has been developed in our institute. The aim of Mr. Yoshida's stay was to construct a geometrical model for the neutronic analysis of an alternative HFTM design concept, called HFTM-H, which is proposed by Japan and aims at high temperature irradiations for SiC specimens, and subsequently to conduct neutronics analyses, based on McDeLicious calculations, to evaluate the detailed irradiation properties.

Mr. Yoshida was a beginner in the neutronic field when he started at KIT. Nevertheless he quickly learned and finished the construction of the complicated geometrical model with surprising speed. He also quickly familiarized with the McDeLicious code and the High-performance computing (HPC) system, and progressed very fast in the analyses. The very complicated distribution of the nuclear heating in the HFTM-H was evaluated for the first time by Mr. Yoshida. It was very impressive to us how hard Mr. Yoshida worked to get familiar with a new thematic field and how fast he succeeded in finishing his work.

We appreciate very much Mr. Yoshida's efforts and achievements of his research stay at KIT. We are confident that he enjoyed his stay and can benefit from the experience he gained. We wish him good success and all the best for his future career.

Yours sincerely,

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(Head of FNG at KIT/INR)

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(Scientific supervisor)

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