

Sukesh Aghara ORNL Visit on August 3rd and 4th 2004

- The meetings and program was coordinated by Bernie Kirk
- Visit purpose: Presentation & personal meetings for future collaborations.
- List of people meet:
 - Bernie Kirk
 - Mike Westfall
 - Kevin Clarno
 - Grandy Yoder
 - Phillip Ferguson & Erik Iverson
 - Mike Dunn
 - Jim Rushton
 - Jeff Johnson
- Brief synopsis: My research interests can be categorized into:
 1. characterization of radiation environment: secondary radiation and ground based sources (modeling, and dosimetry)
 2. materials testing: structural and shielding for the spacecraft/space probe
 3. test instrumentation and its reliability in radiation environment

The purpose of the first visit was to get a feel of what the research focus and expertise are at NSTD. The meetings were with a diverse set of individuals from criticality safety group to thermal hydraulics group. The result of the visits seems to lead to short term and long term collaborative efforts. Some of the immediate collaborative interests come from Jeff Johnson's group which deals with space reactor shielding aspects. The meeting with Phillip and Erik focused on work at SNS and my interest with neutron environment characterization. Specifically, collaborative work in the neutron detection techniques, instrumentation for neutron spectrum characterization and dosimetry were discussed.

Talks with Mike Westfall and Mike Dunn gave me a good insight into the code capabilities and cross-section work that is currently being pursued by NSTD groups. Eyan Glud and Dick Lillie were two names that were suggested for future contacts because of their involvement with ORIGEN and high energy cross-section. Grandy Yoder's research area although not immediately in my specific field can certainly lead to new areas for me and open doors to other faculty members at PVAMU. He also mentioned about the "Hot Cell" facility which is involved in materials testing and will be of interest to me to visit and plan experiments. Jim Rushton's enthusiasm for student and faculty internship at NSTD was very rewarding. His lead on Bill Magwood and John Gutteridge certainly are well appreciated as one of my goal at PVAMU is to jump start and expand the nuclear engineering program. Discussions with Kevin Clarno and Claudio, both early in their carriers, were focused towards long term involvements. Bernie Kirk is invaluable resource of information pertaining to NSTD as well at many other researchers around US. Much was discussed and much more is desired through this interaction with her.

In the near future (6-10 months) I wish to look for a possible second visit to meet some folks that I missed during my first visit. Also like to place at least one student if not 2 in Jeff Johnson's group. I would also like to get some more information on the computer code related student internship, specifically MCNP and MCNPX. I would like to look for a 5 (or 10) week sabbatical at the lab for myself. Certainly, my long term goal is to open a channel of research between ORNL and PVAMU through research grants, student internship and faculty sabbaticals. Potential of bringing a researcher from ORNL to PVAMU for a summer or an entire year is an idea that I entertain for distant future.