Motivation and Objective of 2009 PAGES Summer School

Program for Advanced Graduate Education system for nuclear science and engineering with Social scientific literacy

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(Traditional) Nuclear engineers’ view and belief

• Nuclear energy is important and beneficial for our lives and society.

• While there are difficulties, with more research and development of technologies and communication, we can overcome such difficulties.

• However, due to public’s biased understanding, it takes unnecessarily long time to make ‘social decision’. Sometimes, we have to give up plans that we believe are really beneficial for the society.

  – It is often said that the public needs to be “educated.”

• To obtain the public’s “understanding” and “support”, we have done all kinds of efforts for technology improvement as well as for better communication. But, these seem not so successful. There must be better solutions.
Questions:

• Benefit for whom?
  – Who will be the most benefitted?
  – “the greatest good for the greatest number”
• Is this an issue unique to nuclear engineering?
• Approaches, criteria, and conditions for engineering design are affected by social factors. But, to what extent should nuclear engineers understand social factors?
• What is the role of nuclear engineers in social decision making process?

Motivation for PAGES

• Among many other fields in nuclear, we recognize particular importance of social-scientific approaches in the field of nuclear fuel cycle and radioactive waste disposal.
• New-generation nuclear engineers need to be able to:
  – Understand the social system correctly,
  – Listen to the public, and
  – Develop engineering options,
  to explore optimized solution for the people.
Aim and Goal

• This School will provide PhD-level graduate students and early career nuclear engineers with advanced studies in integrated social sciences and engineering to prepare them for some of the key challenges and demands, focusing on the geologic disposal issue.

• Successful students will leave with new viewpoints and understanding about the relationship between societal needs and the role of engineering that cannot be provided by current curriculum.

• It is the aim of the school to foster the development a next generation network of engineering scientists capable of carefully listening to the public, understanding the societal needs, contributing to the societal decision making from the engineering expertise, and then realizing the public needs in the form of engineered systems.

Summer school contents

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Enjoy this rare opportunity!

All relevant information is available at: http://goneri.nuc.berkeley.edu/pages2009/

Special thanks to:

- Invited lecturers, speakers, and tutors
- Students
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- Organizing committee members
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