

International Collaboration in the Development of NPP Software ——and the Important Role Women Play

Suqing Jiang, Lifang Liu, Hui Yu
State Nuclear Power Software Development Center (SNPSDC), National Energy Key Laboratory of Nuclear Power Software
Email: jiangsuqing@snptc.com.cn

I. International Collaboration & Exchange of SNPSDC

The State Nuclear Power Software Development Center (SNPSDC), the first and largest professional nuclear power software research and development institute in China, has been developing COSINE-- a self-reliant NPP design and analysis software product with China brand since 2010-- with the support of National Science and Technology Major Project.

In this process, SNPSDC conducted a lot of international collaboration and exchange with some well-known organizations, institutes, and universities in other countries.



- Participating in international joint projects
- Technical Experience Sharing
- Peer Review
- Independent V&V
- Joint Review
- Technical Cooperation

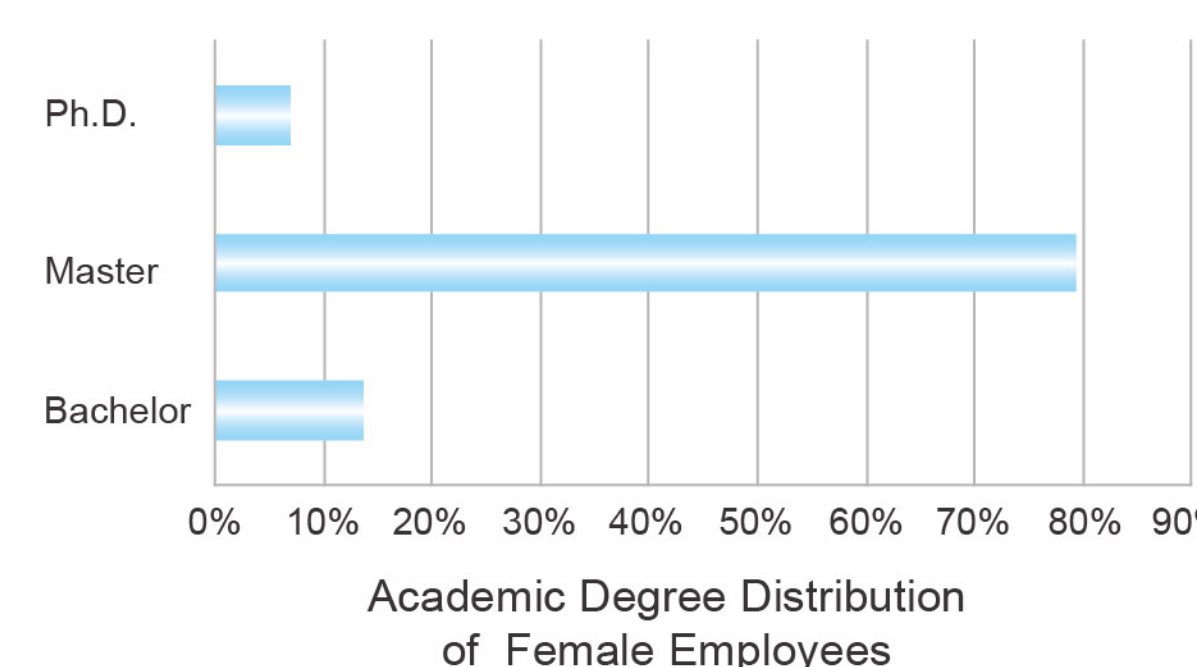
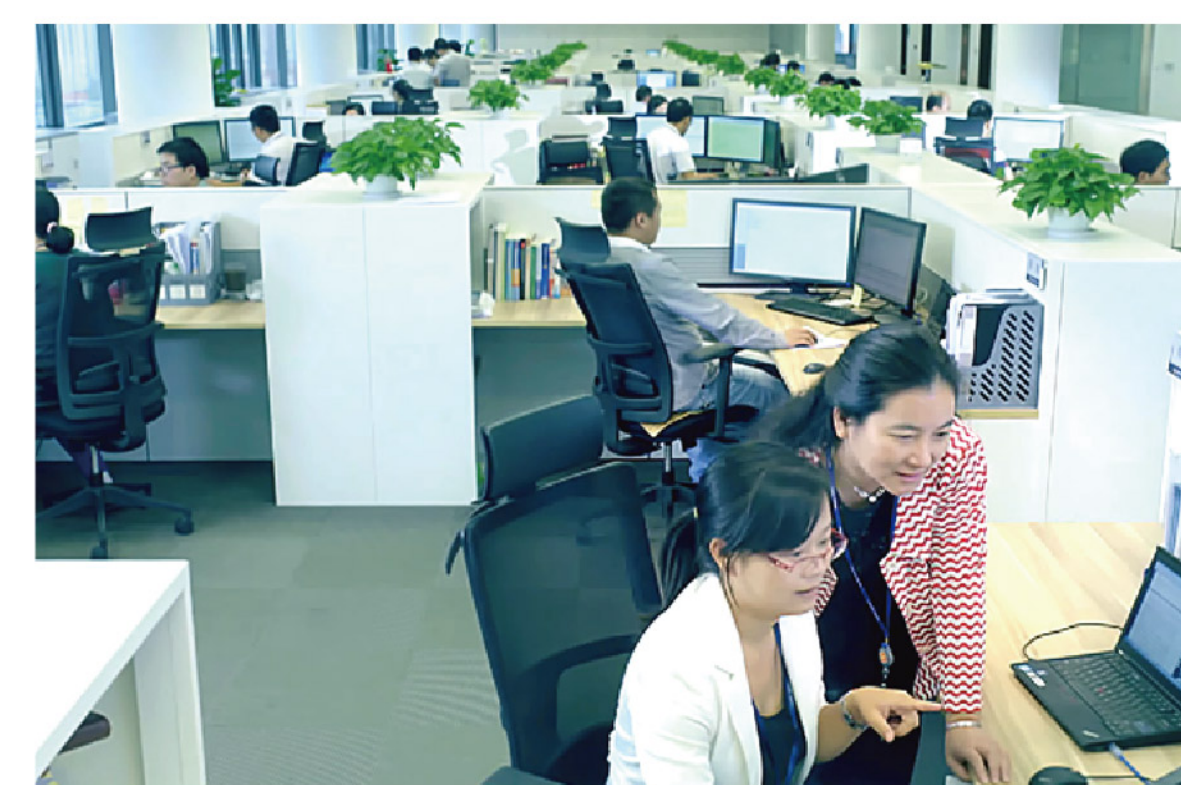
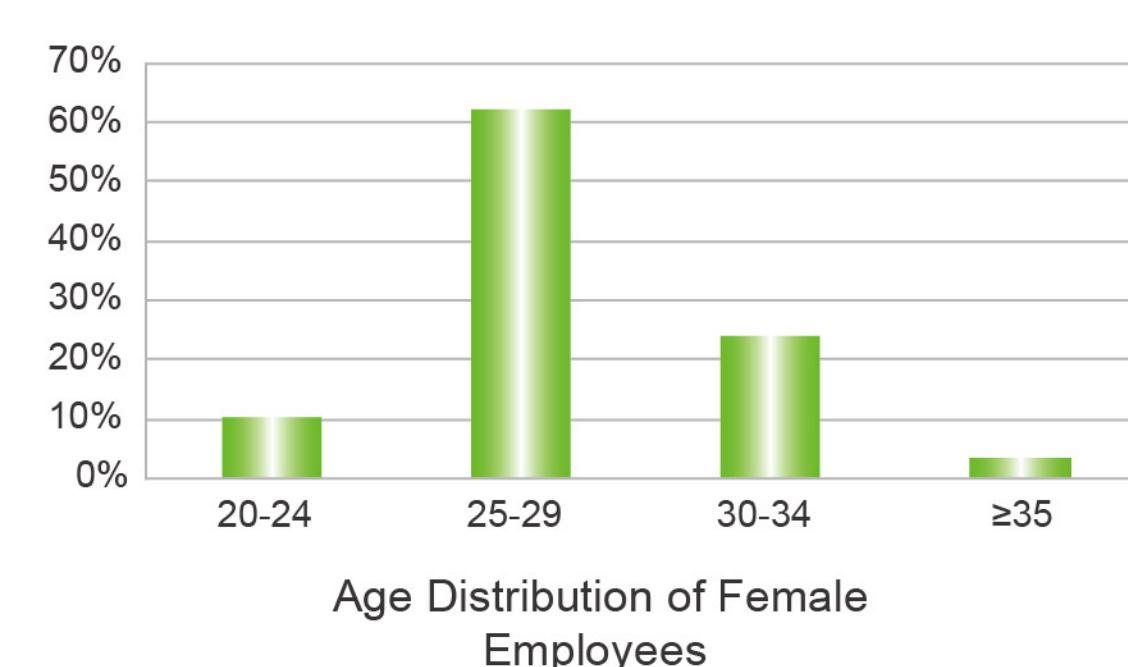
SNPSDC shares experience and data with other countries with respect to particular areas. SNPSDC's engineers have also been actively participating in international technical and research exchange for presenting their innovative work to the community while learning from peers. Over 30 papers have been presented in international conferences with respect to nuclear reactor thermal hydraulics, safety analysis, reactor physics and software engineering within the past 5 years.



II. Professional Women——Play an Irreplaceable Role by Their Carefulness, Patience and Flexibleness

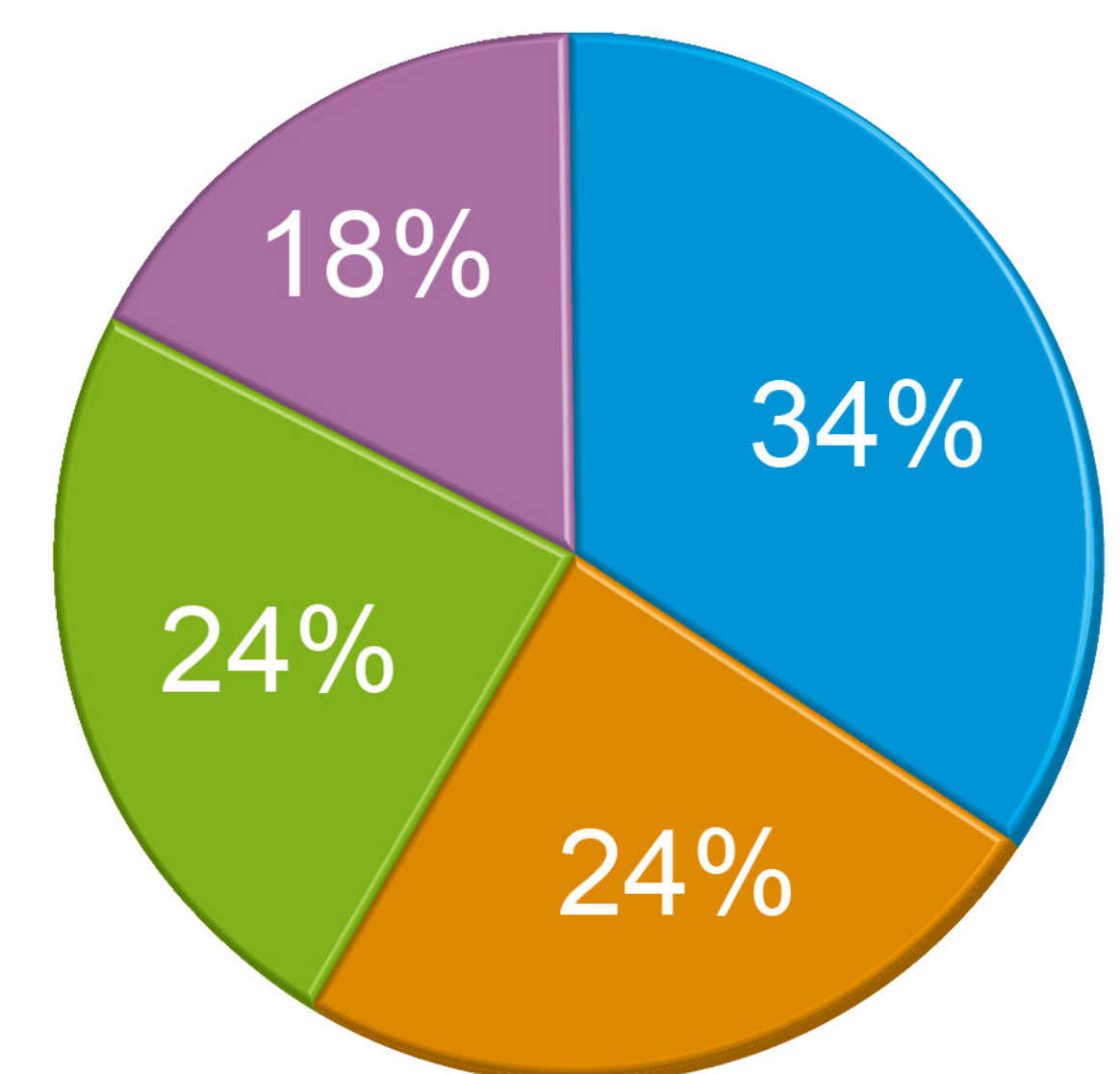


Female employees account for nearly 1/3 of total in SNPSDC. About 75% of them are senior engineer, engineer or assistant engineer. Over 70% female researchers directly conduct in core products' research and development. Female employees either drive or get actively involved in a lot of aspects of international collaboration and exchange, such as technical communication, business negotiation and overseas affairs management.



Specialty of Female Employees

- Nuclear Science & Engineering
- Mechanical Engineering, Thermal Engineering
- Computer Science, Software Engineering, EE
- Economic Management, Business Administration, Foreign Language

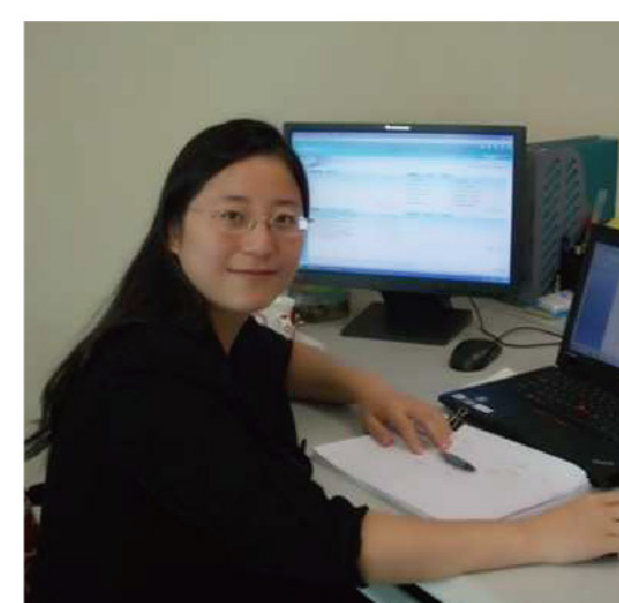


Female Representatives



Ms. Yanhua Yang, Ph.D., Professor
Vice President of The State Nuclear Power Research Institute (SNPRI)
Director of The State Nuclear Power Software Development Center (SNPSDC)

With over 30 years' experience in reactor severe accident research and safety analysis, also specialized in advanced reactor design, NPP simulation and numerical analysis of flow and heat transfer, presented more than 100 papers. She is Principle Investigator of COSINE development supported by National Science and Technology Major Project. Besides, she also holds the post in university, national organizations and administrations, e.g., professor of Shanghai JiaoTong University, member of Expert Committee of National Nuclear Safety Administration, member of Reactor Thermal Hydraulics Committee of Chinese Nuclear Society.

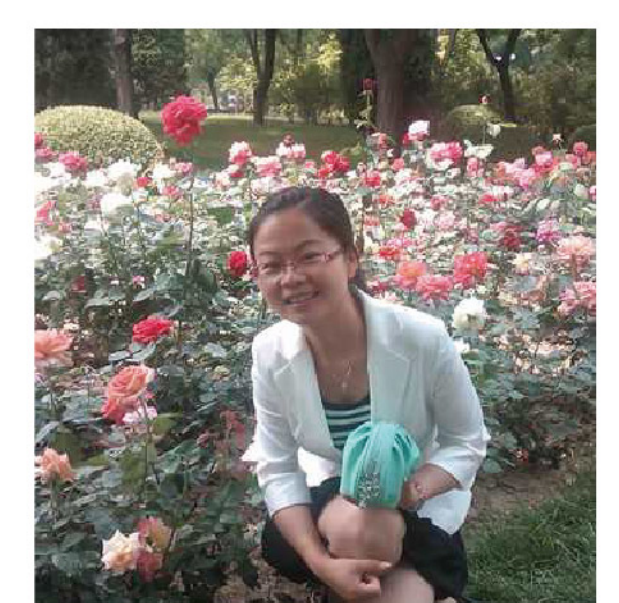


Ms. Hui Yu, Ph.D., Senior Engineer

She got doctoral degree in nuclear and quantum engineering from Korea Advanced Institute of Science and Technology and then devoted herself in the development of COSINE, particularly for reactor physics and radiation shielding analysis codes. She, and her team are gaining popularity for their great teamwork and outstanding performance.

Ms. Lifang Liu, Master of Thermal Engineering, Engineer

She has devoted herself to model evaluation of thermal hydraulics safety analysis evaluation model for more than four years. Her thoroughness and attention to detail make the tasks in good order without confusion. she also work on the planning of evaluation experiments.



Ms. Suqing Jiang, Master of Nuclear Science and Engineering, Engineer

Her research specialty is primary water chemistry control in PWRs, and now she is engaged in intellectual property right and international cooperation management. Due to her research background, it's easy for her to understand and solve all the problems when others are asking for help. Besides, her carefulness and executive ability make all work well conducted and promoted.

Acknowledgement

This work is supported by National Science and Technology Major Project of Large Advanced PWR Nuclear Power Plant in China (2011ZX06004-024).