Mădălina COCA

(She/Her)

Romania

Madalina Coca works for the National Commission for Nuclear Activities Control (CNCAN), the nuclear regulatory authority of Romania. She is the Head of the Nuclear Reactors Regulation and Oversight Section of CNCAN. She has 20 years of practical experience in the development of regulations on nuclear safety and security, performing nuclear power plant inspections, review and assessment and licensing of nuclear installations, in all areas related to design and operation. She has also been involved in numerous international activities in the areas of nuclear safety and security. She is an Engineering Physicist and has a Ph.D. in Nuclear Physics and Application of Nuclear Technology.
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She can provide mentorship in English and Romanian, for applicants with technical background, working in organizations involved in nuclear power plant construction, commissioning, operation or in the regulation, review and assessment, inspection and enforcement and licensing of nuclear power plants (NPP).

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MENTORSHIP TOPICS

Nuclear Safety – Design, Siting, Construction, Commissioning and Operation of Nuclear Power Plants (NPP)

The course will provide information about:

- *Nuclear safety standards*
- *Nuclear safety legislation and regulations*
- *NPP Design bases*
- *Systems, structures, components and equipment important for safety and reliability*
- *Protection against internal and external events*
- *Environmental qualification*
- *Seismic qualification*

- *Safety classification*
- *Design documentation*
- *Design specifications*
- *Siting requirements and evaluations*
- *The concept of site envelope*
- *Site selection, site preparation, site reassessment*
- *Construction*
- *Commissioning*
- *Operational activities*
- *Plant states and modes of operation*
- *Limits and conditions for operation*
- *Operating procedures; technical bases for operating procedures; verification and validation of procedures*
- *Operator fundamentals*
- *Post-trip reviews*
- *Shift staffing*
- *Types of maintenance*
- *Maintenance procedures; technical bases for maintenance procedures; verification and validation of procedures;*
- *Foreign Material Exclusion*
- *Plant upgrades / Refurbishment*
- *Mandatory tests*
- *Types of in-service inspections*
- *Ageing Management*
- *Configuration Management*
- *Radiological Protection*
- *Fire Protection*
- *Response to transients and accident management*
- *Emergency Planning and Preparedness*
- *Training and Qualification*
- *Dealing with climate change issues*
- *Human Factors Engineering and Human Performance*
- *Cybersecurity basics*
- *Nuclear security basics*
- *Interfaces between nuclear safety and nuclear security*
- *Management and Leadership for nuclear safety*
- *Nuclear safety culture*

The list of topics can be tailored.

Duration: 1 - 2 years, depending on the complete list of topics agreed