

# INCOSE SEP EXAM PREPARATION

### **Upcoming Dates**

27.05.2024 - 30.05.2024, Zurich

# **Course Descriptions**

A 4-day course to gain Systems Engineering skills whilst also being effectively prepared to take the INCOSE ASEP and CSEP exam. The training course is focused on both understanding and applying key Systems Engineering principles consistent with the ISO 15288 standard and the INCOSE Systems Engineering Handbook, enabling course attendees to both apply Systems Engineering more effectively, and to pass the INCOSE SEP exam.

## **Learning Outcomes**

- Introduction to INCOSE, the handbook and the INCOSE certification model (SEP)
- Understand the key concepts of Systems Engineering
- Thorough review of the processes described in the INCOSE handbook
- Understand the structure and relationships of the ISO 15288 processes

- Extensive practice of realistic questions
- Prepared to take the INCOSE SEP Examination

#### Who Should Attend?

- Systems Engineers
- Requirements Engineers
- Integration, Verification and Validation Engineers
- Configuration Managers
- Quality and Process Engineers
- Project and Program Managers
- All Engineers seeking a holistic approach to Engineering

#### Course Rates

Early Bird: 2475 CHF | Regular: 2750 CHF

#### **Duration**

4 days

### **Delivered By**



Seb Klabes

Sebastian has authored and reviewed numerous publications and likes to implement systems engineering principles.

After working at the Institute of Transport Science of RWTH Aachen as research associate, he worked at the German Aerospace Centre as Project Officer and as Project Systems Engineer at Bombardier.

Currently, Sebastian is heading the RAMS department at Siemens' Mobility division. He is actively involved in the committee of the Swiss Society of Systems Engineering, is a certified Systems engineering professional and is giving systems engineering training at Siemens.

Sebastian enjoys approaching organisational and technical challenges with a 'rock solid' systems thinking approach.



Mike Johnson

Mike has worked leading challenging product development roles predominantly in the Space and Defence Industries since completing his Masters degree in Photonics and Optoelectronic devices at the University of St Andrews, UK.

He has worked predominantly in the roles of Systems Engineer, leading technical developments involving inter-disciplinary teams often consisting of Mechanical, Electrical, Technology, Software and Optical Engineers. He worked at RUAG Space, Zürich for five years. During this period he moved into management, leading the Systems Engineering group in the product unit Optoelectronics and Instruments. In addition he gave Systems Engineering training courses to the employees across the whole company, training circa 100 Engineers from a beginners to an advanced level.

Having moved to Roche Diagnostics International to lead the Systems Engineering team in Rotkreuz, Switzerland, he is now passionately applying his experience and knowledge of Systems Engineering to the Healthcare industry.

He is passionate about product development and especially the application of Systems Engineering. He is one of the founders of the Swiss Society of Systems Engineering (SSSE) and regularly attends Swiss based IET and INCOSE lectures/seminars. He is the organiser of SWISSED, Switzerland's annual conference on Systems Engineering. In addition, he is the co-founder of SE-Training GmbH, specialising in high quality delivery of Systems Engineering training courses in Switzerland.

Chartered Engineer (IET 97325920) and Chartered Systems Engineering Professional (CSEP).



Piet Belgraver

Piet Belgraver started his career as electronic development engineer for several engineering companies in the Netherlands. He continued extending his technical expertise in the high volume consumer electronics industry as a senior design engineer when he moved to Denmark. During this time, he took over the role of hardware project leader for several known Nokia mobile phones. In his role his focus was to coordinate the local and global projects teams to achieve on-time delivery in factories world-wide.

After six years working for Nokia, he moved to Switzerland to work in the Aerospace industry at RUAG Space. In 2016 he moved to Thales Alenia Space when part of RUAG Space was sold to Thales Alenia Space. He currently he has the position of senior project manager for several space projects at Thales Alenia Space.

He is certified (IPMA) senior project manager with more than 15 years of experience in technical project management ranging from high volume consumer electronics to high quality Aerospace industry



Marco Di Maio

Marco has had many roles in Systems Engineering: Professor at a technical university, and Consultant for and Employee in the development of complex systems. He was the managing director of projectglobe - a boutique consultancy firm specialising in Model Based Systems Engineering (MBSE) and Information Management (IM) to support innovation driven engineering projects. Major customers are the fusion research community, the automotive industry, and 3D laser-welding and robotics companies.

Marco holds a PhD in nuclear engineering and a Masters in Operational Research. In his role as research fellow at Europe's largest fusion laboratory, JET near Oxford, he devised a novel diagnostic system, which earned him a world-wide patent. Marco then worked for the automotive industry managing product development and launch projects for the emerging markets of Eastern Europe and Russia before co-founding projectglobe with the purpose to devise novel methodologies, frameworks and tools that combine MBSE with IM to enable effective innovation and product development.

Together with partners from industry and academia, projectglobe have developed CLOSE - a Closed-Loop MBSE methodology based on robust semantic reference model. This model allows to automatically generate the required engineering artefacts in the correct format for SE teams and domain experts alike. The loop is closed by so-called "Experimentable" Digital Twins that provide in-the-loop feedback for all developers throughout the whole product life cycle. CLOSE runs on projectglobe's fractal data engine and thus allows for unlimited scalability in managing all project information.



Marco Serra

Marco's professional experience, built over almost 30 years of working with clients in North America, Europe and Southern Africa, spans diverse roles in the aerospace, automotive, defence and energy industries. For example, as Systems Engineer Marco was involved in the initial conceptual development and technology transfer assessment of a sample handling and analysis system intended to receive and analyse material returned to Earth on Nasa's Mars Sample Return Mission. Marco also spends significant time consulting in the Oil & Gas and Energy industries providing system and component design support, conducting failure investigations, providing technical expertise in legal disputes, validating system designs, and developing analysis methodologies for complex fluid-mechanical simulations. More recently, Marco has been working on the thermomechanical design of optical terminals for inter-satellite communications.

Marco holds a Masters Degree in mechanical engineering from the University of Pretoria, South Africa (1993). He also holds a Masters Degree in Engineering and Management from the Massachusetts Institute of Technology, USA (2002), with a focus on Systems Architecture, Systems Engineering, and System and Project Management.