



SYSTEMS ENGINEERING - PROFESSIONAL DEVELOPMENT PROGRAMME (SE-PDP)

Descriptions des Cours

The SE-PDP addresses a fundamental need of many Organisations. With a shortage of senior Systems Engineers and Lead Systems Engineers, how can their teams rapidly increase their SE maturity and capabilities in a low risk, cost effective and fully customised professional development programme.

The SE-PDP is structured to be delivered over four on-site training sessions, covering three main areas of Systems Engineering:

1. End-to-end complex systems development (6-days)
2. Integrating specialities / quality attributes applicable to the Customer (3-days)
3. SE Matrix Management & Leadership (3-days)

The SE-PDP is only offered in-house and is highly customisable to project teams and their organisations.

Objectifs

- Identify common attributes and causes of complexity.

- Master the application of Systems Engineering methodologies to complex system developments.
- Master key technical management competences required for Senior Systems Engineers, technical matrix leaders.
- In a moderated workshop develop sustainable solutions in the System of Systems context.

Pour Qui

- Systems engineers
- System architects
- System analysts
- Project managers
- Product owners
- Engineering teams

Tarifs des Cours

Please contact us for a customised offer.

Durée

12 jours

Enseignant



Seb Klaves

Sebastian a écrit et fait la critique de nombreuses publications et se passionne pour l'implémentation des principes d'ingénierie.

Après avoir travaillé pour l'Institut des Transports et des Sciences de RWRH

Aachen en tant qu'associé chercheur, il a travaillé au centre allemand d'aérospatiale en tant que responsable de projet et ingénieur système chez Bombardier.

Sébastien est maintenant à la tête du département RAMS chez Siemens, dans la division « mobilité ». Il s'implique dans le comité de l'association suisse des ingénieurs système, certifié à enseigner l'ingénierie système chez Siemens.



Mike Johnson

Mike a travaillé dans le développement de produits dans l'industrie de la défense et de l'espace depuis l'obtention de son Masters en appareils photoniques et optoélectroniques à l'université de St Andrews, Grande Bretagne.

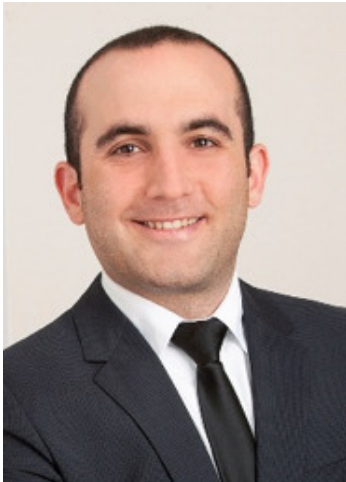
Il a principalement travaillé dans les rôles d'ingénieur système, a dirigé de nombreuses équipes de développements techniques comprenant des ingénieurs mécaniques, électrique, technologique, de logiciel et d'optique. Il a travaillé à RUAG Space à Zurich pendant cinq ans. Pendant cette période, il a obtenu des rôles de direction et a été à la tête du groupe d'ingénierie système de l'unité "Optoelectronics and Instruments". Par ailleurs, il a formé des ingénieurs système dans toute l'entreprise.

Mike a intégré Roche Diagnostics International pour prendre en charge l'équipe d'ingénieurs système de Rotkreuz en Suisse. Il met en pratique avec passion ses connaissances et son expérience de l'ingénierie système dans l'industrie de la santé.

La passion de Mike est le développement de produits et l'ingénierie système. Il est l'un des fondateurs la Société Suisses des Ingénieurs (SSSE) et se rend régulièrement aux séminaires suisses de la IET et INCOSE. C'est lui qui a fondé SWISSSED, la conférence suisse annuelle de l'ingénierie système.

Mike effectue des présentations aux conférences d'ingénieurs, récemment a SWISSSED, Upfront Thinking and the INCOSE International Symposium.

Mike détient les accréditations CEng (IET 97325920) et CSEP.



Mohammad Chami

Expert en ingénierie système basée modèles. Avec un excellent bagage académique et professionnel dans le modelage de langues, procédés et dans le déploiement de méthodes pour modeler les systèmes et adapter leurs outils.

Autres qualifications :

- Deux Masters en électronique et mécatronique et certificat de modelage système professionnel (OCSMP)
- Validé par Bombardier comme expert en Ingénierie (management, procédés, méthodes et outils d'ingénierie)

Auteur et co-auteur de nombreuses publications et donne des présentations dans diverses conférences internationales



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.



Sandra Roth

Sandra is a leadership, team and change management coach with a decade of experience in R&D as a usability engineering expert, user experience leader and SW development department head in a global medical device manufacturer.

Sandra has a M.Sc. in Psychology, a Ph.D. in Human Computer Interaction and holds several coaching degrees.



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.



Gordon Woods

Gordon has a wealth of experience in requirements management, driving innovations in the defence, aerospace and nuclear and rail industries. He has previously worked on fast jets, military drones, UK and US tank system and trainers, satellite systems and nuclear submarines. For the last eight years he has specialised in supporting requirements management in rail projects including HS2 and East West Rail in the UK; High Speed Rail, Mass Rapid Transit, Light Rail Transit projects in Malaysia; the Qatar metro and tram projects; the Riyadh metro and lately the NEOM Backbone railway projects in Saudi Arabia.

He has brought his own unique style to the elicitation and specification of requirements, the Verification and Validation of the design products and safety assurance, all within a progressive assurance environment.



Kevin Howard

Dr Kevin Howard has more than 40 years' experience in engineering. He initially worked in radar and radio frequency systems, and for the last 25 years has focused on Systems Engineering and managing complexity. He has been Chief Engineer for a range of systems ranging from military vehicles to space-based sensor systems. He has been VP Systems Engineering for a Global organisation providing safe city and big data technology. He now provides Systems Engineering consultancy, and as Engineering Director helped establish Optima Systems Consultancy Ltd as one of the leading Systems Engineering specialists providing consultancy to the defence and energy sectors around the world.

Kevin has a PhD in Optimising Complex Systems, supported by Post Graduate qualifications in Psychology and Business Administration. He is a Chartered Engineer, an external examiner for Cranfield University.