HEC Liège
Executive School
Management School - University of Liege

Year 2017 | Seminar in Hec Liege Campus, Belgium

INDUSTRY 4.0: DRIVING PERFORMANCE AND MANUFACTURING EXCELLENCE

PROGRAM OBJECTIVES

The Advanced Management Program(AMP) is designed to empower executives with new knowldege and management expertise to drive performance to the highest level in your organization. Engaged with experts in the field from HEC Liege,Management School of the University of Liege you will emerge with expert skills and mindsets to remain competitive in any economy.

CURRICULUM

Immersed in a series of thought-provoking lectures, case studies, and hands-on workshops, you will explore the steps for delivering differentiated manufacturing excellence. The concept of Industry 4.0 was born in Hamburg in 2013. This concept brings together all of the technological developments that allow industries to produce faster, cheaper and with more flexibility. Industry 4.0 is an extension of current technologies (multifunctional logic controller, networks, active sensors, computer numerical control and learning PEL and MES software). Once interconnected these developments leads to a real breakthrough, a fourth industrial revolution.
Duration: 8 days
Target: Every person who wants to prepare the future of their industry (15 to 25 people)
Goal: Quickly encompass the technological, economic and organizational challenges of the Industry 4.0. – Create customised development plan specific to participant's industry, recognising the unique challenges of that industry.

PROGRAM

Day 1 : The industry 4.0 – global overview

- Welcome
- Quick framework of Industry 4.0 concept – Overview of technological, economic, organizational and societal challenges.
- Two factory visits e.g. Mercedez Benz (forerunner in 4.0) and Siemens Technology, Frankfurt (Designer of COMOS, a factory digitalization software)
- Return to Eupen

Day 2 : Technological challenges : Smarter machines

- Seminar A: Eight key principles for Industry 4.0 – 5 technological movement
- Session 1: Machine smartness – Smart sensors, machines more versatile, learning controller, steering of flows, non-electronic sensors, transformation of the workstation, changing the function of the operator.
- Seminar B: Smartness of the interconnections between the machines – data exploitation – flow digitalization software – Creation of flexible production scripts – predictive maintenance – Learning robots.
- Already in use: Computer-aided maintenance, predictive maintenance.
- Conference - the shape of challenging camps about the challenges of big data.

Day 3 : Interconnections : Smart production lines

- Session 2 : Interconnection between smart machine ; network machine to machine and confluence of the networks: Ethernet, IoT, communicating control, MES and PLM larger and larger – trackability – predictability
- Session 3: Optimisation of production capacities – energy and raw material saving – intelligent material – flow optimisation.
- Already in use: integrated supply chain management – Influence of Industry 4.0 on costs structure.
- Conference - the economical challenges: circular and functional economy, frugal company – The value of companies and factories will not be calculated the same way. Conference-demonstration about the immaterial assets and the calculation of the future value of a company.

Day 4 : Flexibility and logic of small productions : Smart production

- Session 4: Personalisation and flexibility – multipurpose machines, Smart product – Process management – redesign of Agile processes.
- Seminar C: Economic logic of small and personalised production – paradigm shift for purchasing – review of stock evaluation fir small series – Impact on investment ratios and equipment decisions.
- Session 5: Network design and engineering: Collaborative CAD – Shared R&T – CAM and CAE software – new way for creativity – FabLab – additive manufacturing – prototyping – exploded and globalised production
- FabLab evening – like Technifutur – inter-team challenge.

Day 5 : cobotisation and enpowerment of robots : smart factory

- Seminar D : Societal challenges of Industry 4.0 : Global warming, distribution of wealth, intangible assets and ability to integrate new manufacturing methods
- Session 6: Empowerment - new vison of the factory – the end of production lines – Autonomous process islands – Geographical and technical fragmentation of production – scripting, cobotisation, CPS (cyber-physical system), real time process simulation, production scripts banks.
- Conference - operator mobilisation and shifting of skills in the factory.

Day 6 : smart clusters – who buyS the industry 4.0

- Seminar E : Commercial challenges of Industry 4.0: a new way to interact with customers - find the customer in the centre of the factory – shift from product logic to service logic and UX (User experience) – entering in the functionality economy – manage the complete product life cycle – think circular economy
- Session 7: Put the client in the middle of the factory – Build new offers, add services, practical example of new integrated and circular offers – more complex products – new products – new production scripts
- Session 8: An integrated way to work with customers and suppliers – collaborative design – predictive logistic – real time prototyping – living labs – substitution of ingredients, component, technology or functionality
- Conference-meeting about the hubs and clusters of collaboration, with AMEX

ANTICIPATED FACULTY PROFESSOR XXX

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Day 7 : Transformation management – Build today

- Seminar F: Change management in quick mode: creating today better conditions for the engagement of talents and the success of the transformation steps.
- Session 9: Eight conditions to be examined from the beginning of an Industry 4.0 approach: market, regulation, technologies, agility, maturity.
- Shared assessment about the actions to enhance this training

Day 8 : Build today the industry of tomorrow

- Visit of two companies in Paris, Rockwell automation (robot manufacturer) and Schneider Electric (development of integrated control)
- Final synthesis of action to suggest to prepare today the industry of tomorrow.

Optional Session

You may choose to participate in an optional coaching session at the close of the program. Facilitated by HEC Leige faculty members, this breakout session will enable you to apply lessons learned to your own company-specific challenges and opportunities.

PARTICIPANT MIX

AMP brings together successful leaders from various backgrounds and these individuals have been identified by their organizations as potential heads of their organization.Ideal candidates include plant mangers and business leaders.

Attendess will leave the seminar with an extensive comprehension, enabling them to draw up assessments and to identiy the key opportunities to prepare their industry for the future.

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Why HEC Liege,Management School of University of Liege?

HEC Executive School, Management School - University of Liege (HEC-ULg) was created in 2005 as a result of a successful merger between the Economics and Management Departments of the University of Liege and a private business school (HEC Liege).

HEC-ULg is one of the leading Belgian business schools for graduate and postgraduate programs. Currently it has 260 faculty staff with international recognition and more than 4500 students currently enrolled. It also has 13,000 alumni working all over the world.

The School's missions are both to improve the managing and economic skills present within companies and organisations and to provide them with managers and entrepreneurs having a first-rate command of modern management concepts, practices and tools. HEC-ULg particularly emphasizes entrepreneurship and innovation management.

The School's international vision is expressed through its numerous research activities in the fields of management and economics, the many fruitful contacts and partnerships it has with companies and universities worldwide as well as the ever increasing internationalisation of its module programmes and teaching staff. HEC-ULg's ambition is to back up its status as an international school by developing its strong points and by further increasing its quality requirements.

ADMISSIONS

Application Process — Please visit amp@istudyinc.com for complete admission requirements and to apply online. Applications are requested at least four weeks before the program start date. Since qualified candidates are admitted on a rolling, space-available basis, early application is encouraged.

Admission Requirements — Admission is selective and based on professional achievement and organizational responsibility. No formal educational requirements apply, but proficiency in written and spoken English is essential.Advanced Management Program enhance the leadership capacity of the managers enrolled as well as their organizations, and HEC Liege expects full commitment from both. While participants devote time and intellect to the learning experience, sponsoring organizations agree to relieve individuals of their work responsibilities during the program.

Program Fee — The program fee covers tuition, books, case materials, accommodations, and most meals. Payment is due within 30 days of the invoice date. If admission is within 30 days prior to the start of the program, payment is due upon receipt of the invoice. Cancellation policies are outlined in the information provided to applicants upon admission.

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For more information, please contact our client service specialists at:
Advanced Management Program
Email : info@istudyinc.com