ECAM ENGINEERING
International Double Diploma Program at ITC

ECAM Engineering program is an international double diploma program between ECAM LaSalle Lyon, France and Institute of Technology of Cambodia. Created in 1900, ECAM LaSalle is recognized as one of the best private engineering schools in France. An excellent and world-renowned education system of French "Grande Ecole".

Key attributes

- French Engineering degree: ECAM Engineering
- Medium of instruction is English
- Student mobility inbound/outbound ITC/ECAM LaSalle
- Language level C1 in English and B1 in French to be a graduate
- International Bachelor degree of Engineering delivered by ECAM LaSalle and Engineer's degree delivered by ITC after completion.
- Double Degree at Master Level with various partnered universities

Goal:

- Train multidisciplinary engineers for industry in Cambodia

How:

- Implement ECAM LaSalle's engineering program at ITC starting in October 2021

Target Students:

- ITC students Y3, especially from
  - Industrial and Mechanical Eng. (Dépt. GIM)
  - Electrical and Energy Eng. (Dépt. GEE)
- Foundation Year (Y2) of international programs

Offered Concentrations

Industrial Eng. and Supply Chain Management (SCM)

- Soft Skills such as communication, team work
- Mathematical and Analytical Skills
- Programming and Software Development Skills
- Basic Control Systems Understanding
- Electrical Machines and Drives Understanding
- Industrial Organization Skills
- Supply Chain Management Skills
- Basic Industrial Engineering Understanding
- Project Management Skills
- Digital Manufacturing Understanding
- Robust Supply Chain Knowledge
- Industry of the Future Knowledge

Robotics and Automation (ROA)

- Soft Skills such as communication, team work
- Mathematical and Analytical Skills
- Programming and Software Development Skills
- Advanced Control Systems Understanding
- Electrical Machines and Drives Understanding
- Basic Industrial Organization Understanding
- Advanced Robotics Knowledge
- Automation Knowledge
- Sensing and Perception Understanding
- Signal Processing Understanding
- Machine Learning and Deep Learning Understanding
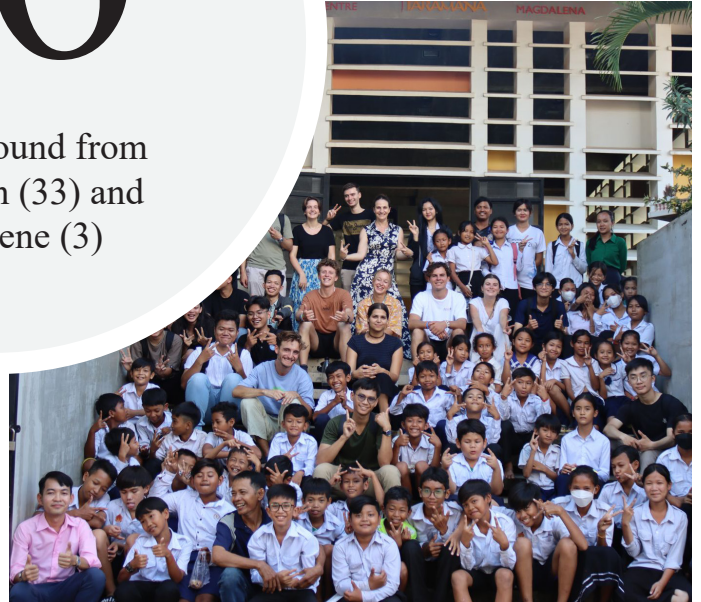- Machine Vision Programming Skills

Student Mobility

29

students outbound to
ECAM LaSalle Lyon

36

students inbound from
ECAM Lyon (33) and
ECAM Rene (3)

Competencies SCM

- **Soft Skills:** The program emphasizes the development of communication and teamwork skills, which are essential for effective collaboration in industrial settings.
- **Mathematical and Analytical Skills:** Students will gain a strong foundation in mathematics and analytical thinking, which are crucial for problem-solving in industrial engineering.
- **Programming and Software Development Skills:** The program includes courses on programming languages and software development techniques used in industrial engineering.
- **Basic Control Systems Understanding:** Students will learn about the design and analysis of control systems, which are crucial for the operation of industrial systems.
- **Electrical Machines and Drives Understanding:** The curriculum covers the principles and applications of electrical machines and drives, which are key components of industrial systems.
- **Industrial Organization Skills:** Students will gain an understanding of how industries are organized and how industrial systems can be integrated into these organizations.
- **Supply Chain Management Skills:** The program offers courses on the principles and practices of supply chain management, including logistics, procurement, and distribution.
- **Basic Industrial Engineering Understanding:** Students will gain a broad understanding of the field of industrial engineering, including its key concepts, methods, and applications.
- **Project Management Skills:** The curriculum includes courses on project management techniques, which are essential for managing complex industrial projects.
- **Digital Manufacturing Understanding:** Students will learn about the principles and applications of digital manufacturing, including the use of digital technologies in the design, production, and distribution of goods.
- **Robust Supply Chain Knowledge:** The program delves into advanced topics in supply chain management, providing students with a deep understanding of the field.
- **Industry of the Future Knowledge:** Students will gain insights into the future trends and developments in the industry, including the use of advanced technologies and innovative practices.

Competencies ROA

- **Soft Skills:** The program emphasizes the development of communication and teamwork skills, which are essential for working effectively in diverse teams and presenting ideas clearly and persuasively.
- **Mathematical and Analytical Skills:** Students will gain a strong foundation in mathematics and analytical thinking, which are crucial for problem-solving in robotics and automation.
- **Programming and Software Development Skills:** The program includes courses on programming languages and software development techniques used in robotics.
- **Advanced Control Systems Understanding:** Students will learn about the design and analysis of control systems, which are crucial for the operation of robotic systems.
- **Electrical Machines and Drives Understanding:** The curriculum covers the principles and applications of electrical machines and drives, which are key components of automated systems.
- **Basic Industrial Organization Understanding:** Students will gain an understanding of how industries are organized and how robotic systems can be integrated into these organizations.
- **Advanced Robotics Knowledge:** The program delves into advanced topics in robotics, providing students with an in-depth understanding of the field.
- **Automation Knowledge:** Students will learn about the principles and applications of automation, including the use of automated systems in manufacturing and other industries.
- **Sensing and Perception Understanding:** The curriculum covers the technologies and techniques used in robotic sensing and perception.
- **Signal Processing Understanding:** Students will learn about the methods used to process signals in robotic systems, including filtering and data compression.
- **Machine Learning and Deep Learning Understanding:** The program includes courses on machine learning and deep learning, which are increasingly important in the field of robotics.
- **Machine Vision Programming Skills:** Students will gain practical experience in programming computer vision algorithms for robotic systems.

First Batch Student Graduation