



UNIVERSITE INTER-ETATS CONGO-CAMEROUN
CONGO-CAMEROON INTER-STATE UNIVERSITY



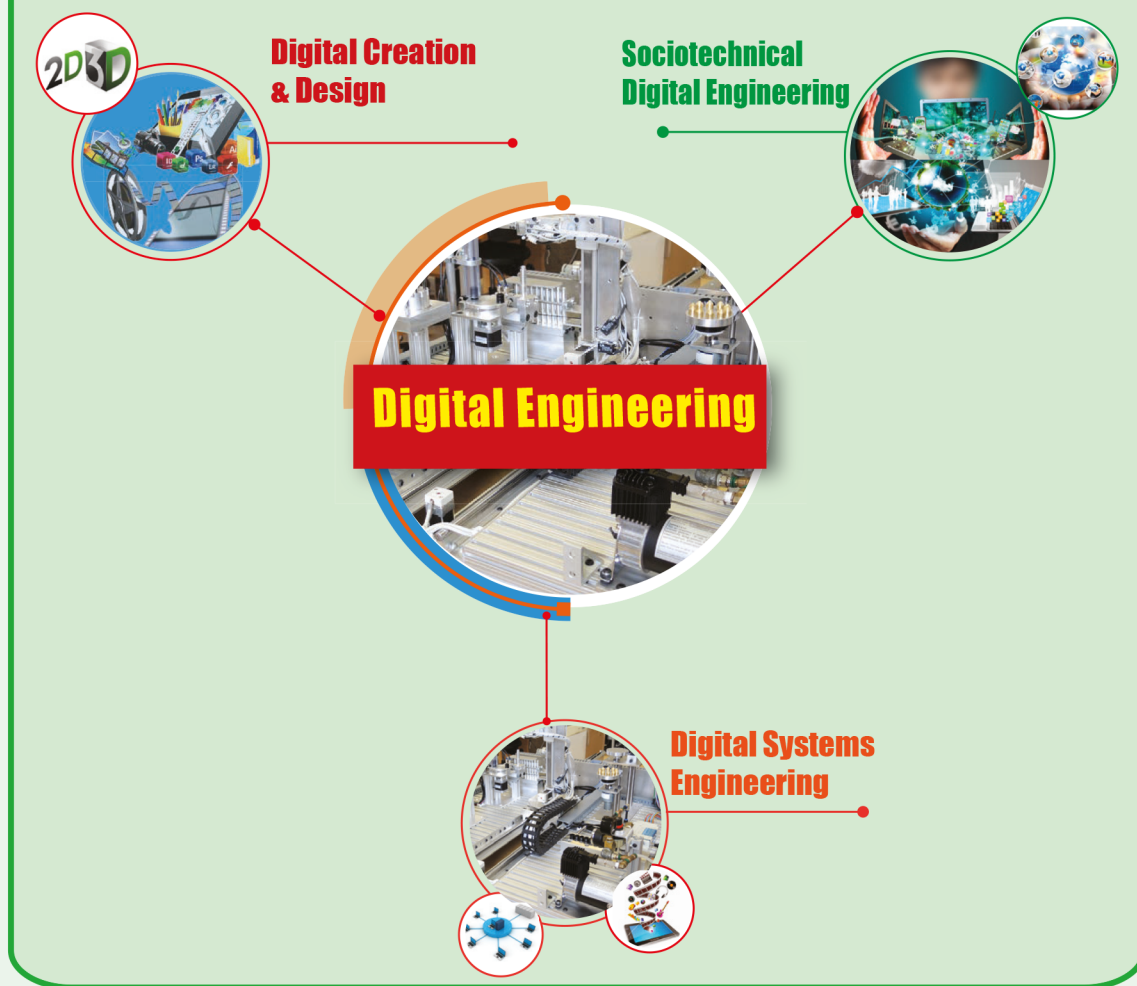
Un pôle d'Excellence Scientifique et Technologique au Cœur de l'Afrique Centrale
A Center of Scientific and Technological Excellence in the Heart of Central Africa



International Advanced School of Digital Engineering of Sangmelima



ENGINEERING BRANCH AND SUBJECT AREAS



Generic skills of graduates

- **Digital artistic creation** (web design, images and sounds, graphic and audio supports, special effects, virtual reality, interactive installations, audio and video mixing, video games, cartoons, etc.)
- **Creation and operation of digital systems** (software, communication networks, multimedia services, web and mobile services, connected objects, information systems, cyber security, etc.)
- **Communication on the web and social media** (e-marketing, e-business, influence and management of virtual communities, web documentary, etc.)
- **Artificial intelligence** (expert systems, automatic learning, computer-assisted vision, etc.)
- **Information intelligence** (information monitoring, data mining, knowledge management, documentary information, etc.)
- **Management of ICT-intensive sectors** (e-governance, cyber defense, standards and norms, ICT policy, competitive intelligence, markets regulation, strategic and project management, quality assurance of digital systems, legal and financial management, etc.)
- **Creation of start-ups** (project ideas, business models, teams' formation, financing, etc.)



Digital Creation & Design

4 majors

Digital and audiovisual production

- Games and interactive applications
- Digital fiction
- Interactive and scriptwriting
- Audio and video editing and post-production
- Sound engineering and design

Infographics, Graphics and Multimedia

- Graphics and elaborate illustrations
- Plastic and graphic creation
- 2D-3D landscape and architecture
- 3D prototyping and modeling
- Complex photo editing
- Production and media preparation (texts, sounds, still or moving images, ...)
- Multimedia programming
- Computer-assisted production

Animation, 3D Realization and Visual effects

- Animated graphic design
- Animation for web or dynamic publishing
- Modeling, animation and 3D renderings
- Video production, editing and special effects
- Augmented reality

Ergonomic, Interaction design and Web design

- User interface design (UI design)
- User experience design (UX design)
- Interactive systems engineering
- Configuration of content management systems (CMS)
- Dynamic websites development
- Web communication



Sociotechnical Digital Engineering

4 majors

Information Management

- Management of information systems
- Indexing and information retrieval
- Documentary engineering and content management
- Information visualization
- Data warehouse management
- Networks, security and information systems

Media Engineering

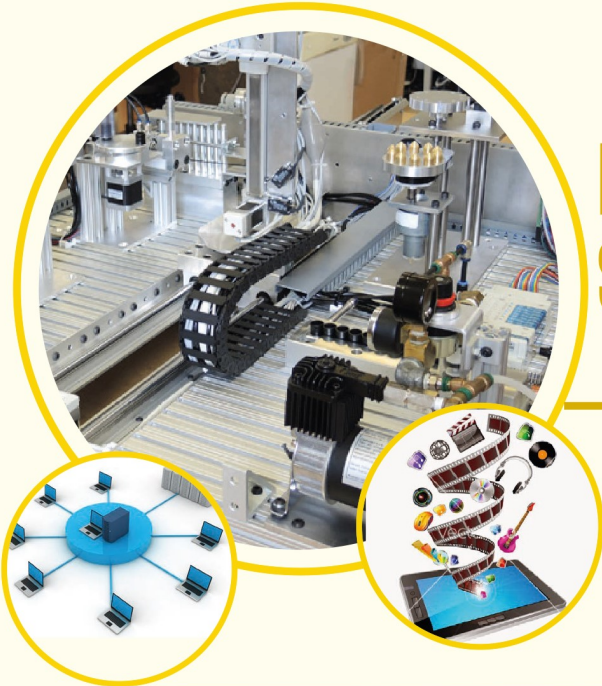
- Management and development of media products / processes
- Evaluation and optimization of media products/processes
- Média products business models
- Web documentaries production
- Virtual community animation
- E-communication
- E-business

Knowledge Management

- Data mining
- Automated learning
- Artificial intelligence
- Modeling, capitalization and knowledge management in the enterprise

Digital-related Legal and Economic Expertise

- E-government and Internet governance
- Legal and economic issues related to ICT deployment
- ICT law
- ICT economy
- Intellectual property and information society
- Digital crime
- ICT projects management
- E-business



Digital Systems Engineering

5 majors

Mathematics and Computer Engineering

- Data Science
- Virtual reality
- Theoretical computer science
- Theoretical computer science
- Numerical analysis
- Probabilité et Statistiques
- Operational research
- Vision and learning
- Quantitative finance
- Optimization

Software and Information Systems Engineering

- Software design, operation and quality
- Systems integration
- Urbanization of information systems
- Business process engineering
- Knowledge modeling
- Decision systems

Mobile and Embedded Digital Systems

- Electronics and Computer systems
- Computer mechanics and electronics
- Mobility and Real-time computing
- Electronics systems
- Industrial data
- Connected objects
- Cloud computing

Digital systems security and safety

- Computer and IT systems administration
- Security audit
- Cyber defense
- Cyber investigation
- Cryptology
- Electronic banking
- Information security

Networks and communicating digital systems

- Electronics and communications
- Electronics systems
- Networks administration and deployment
- Telecom networks architecture and planning
- Radio engineering
- Transmission engineering



Synopsis of the program

SEMESTER 1 TO SEMESTER 4

COMMON CORE CURRICULUM

Basic subjects (whose weights depend on the subject area) in:

- Computer science and related disciplines;
- Engineering sciences;
- Humanities and Social sciences
- Art, Art science and Design
- Languages and Communication
- Entrepreneurship and Project Management

EVALUATION – ORIENTATION - SPECIALIZATION

SEMESTER 5 TO SEMESTER 9

SPECIALIZATION CURRICULUM

- 2 and a half years to perfect your professional profile;
- Personalized follow-up of the student;
- Practices and techniques of the profession;
- Concepts and formalisms;
- Professionalization and preparation for professional insertion

SEMESTER 10

Engineer and expertise internship: 6 months

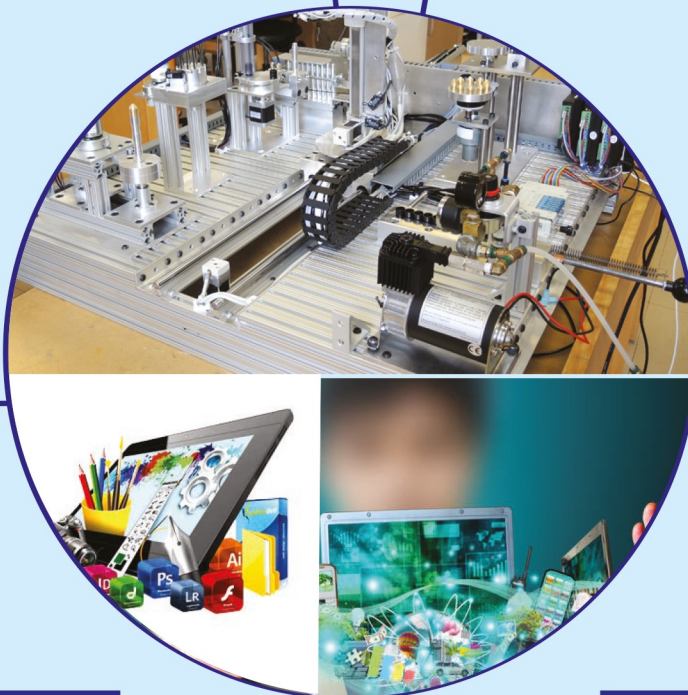
Career opportunities

Digital Systems Architect

Information Systems
Networks and Telecom
Software systems
Connected objects
Embedded systems

Digital Resources Manager

Data bases
Digital systems and networks
Digital Security and Safety
Norms and Standards
Regulation and E-governance



Cognitive Expert

Human-machine interactions
Ergonomics
Intelligent systems
Change Management

Digital Creation Project Manager

Animation and Multimedia graphics
Digital editing
Visual communication
Audiovisual production
Digital simulation
Web design

Information & Knowledge Manager

Digital strategy
Documentary organization
Documentary media
Social media
Web marketing
Digital information monitoring
Knowledge engineering



International Advanced School of Digital Engineering of Sangmelima

The school, that issues the **Master of Engineering/Diplôme d'Ingénieur**, recruits secondary education graduates aged 24 years at most through a competitive entrance examination and a selective direct entrance scheme

SUBJECT AREAS

Digital Creation & Design

Sociotechnical Digital Engineering

Open to graduates of secondary education in:

- *Art and Literature subjects*
- *Humanities and Social Science subjects*
- *Mathematics and Science subjects*
- *Technology subjects*

Digital Systems Engineering

Open to graduates of secondary education in:

- *Mathematics and Science subjects*
- *Technology subjects*

Nota Bene: The direct entry is exclusively reserved for the best graduates of secondary education fulfilling one of the conditions below:

- *Five (05) papers with grade A for GCE AL (or equivalent diplomas) holders*
- *Mention Très Bien, for Baccalaureat (or equivalent diplomas) holders*

DEGREES

End-of-course students who successfully complete a research-oriented thesis receive in addition to the **Master of Engineering/Diplôme d'Ingénieur**, depending of the subject area, either a **Master of Science in Engineering/Master en Sciences de l'Ingénieur** or a **Master of Arts in Engineering / Master en Arts de l'Ingénieur**.

The **Foundation Degree of Engineering/Diplôme Universitaire de Technologie** and **Bachelor of Engineering/Licence en Ingénierie** can be awarded to students who wish to stop training after 2 and 3 years of study respectively.