CentraleSupélec

Accelerated Engineering Degree Programme
Master's level

CentraleSupélec

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Accelerated Engineering Degree Programme

– 2-year graduate programme –

March 2019

CENTRALESUPELEC IN BRIEF:

- One of France's top Engineering/Scientific 'Grandes Ecoles'
- 30% of students come from the best international universities
- A founding member of université PARIS-SACLAY

CENTRALESUPELEC: GLOBAL KEY FIGURES

STUDENT BODY

4300 students
3200 student engineers
30% international students

STAFF

435 academic staff & researchers
482 administrative & tech staff
600 PhD candidates
70 postdoctoral fellows

INTERNATIONAL

180 partners
45 countries
80 double degree agreements
T.I.M.E.
(Top Industrial Managers for Europe)
Erasmus Mundus

COMPANIES

140 corporate partners
executive education
300 training and degree programmes

CentraleSupélec

RESEARCH

17 research depts
750 rank A publications
18 teaching and research chairs

PATENT 53 patents

NETWORK

35 000 active alumni
5 continents
strong and active regional groups

EUROPEAN AND CHINESE DEGREE SYSTEMS

European Degree System

LMD System: Bologna Process (1999)

Elementary School /Junior High / High School

Licence (L) Cycle

Master (M) Cycle

PhD

6 yo — 12 years — 18 yo — 3 years — 21 yo — 2 years — 23 yo — 3 years — 26 yo

High School Diploma « Baccalauréat »

2 years

3 years

Engineer Title (CTI – ENAEE)

Prep School "classe préparatoire"

Higher Education Institution "Grande Ecole"

National Competitive Entrance Exams

Chinese Degree System

4 years

2 year

Gaokao 高考

Bachelor 本科学位

Master 硕士学位

CENTRALESUPELEC RANKINGS

❑ National Ranking

Ranked n°2 in training multi-disciplinary engineers in France
Ranked n°1 for company relations

❑ International Ranking

▪ Employability and Employer Reputation 2018

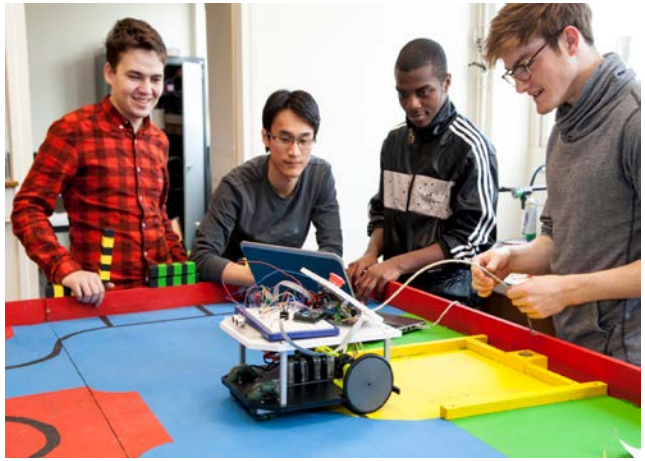
6th in the QS Worldwide Employer Reputation (1st in France)
39st in THE Global Employability University Ranking

▪ Rankings by subject QS 2019

61th worldwide and 1st in France in Engineering and Technology

1st in France in Civil and Structural Engineering
1nd in France in Electrical & Electronic Engineering
1nd in France in Mechanical, Aeronautical and Manufacturing Engineering

THE CENTRALESUPELEC ENGINEERING STUDENT



- Standard **engineering curriculum: 3 years**
- **3500 engineering students** on our **3 French campuses** (Paris-Saclay, Rennes, Metz)
- **30% international** students
- **40% of our students graduate with a double degree from** a partner university (200, including NUS, HKUST, Tsinghua, TU Munchen, EPFL)
- **High employability rate** (8 out of 10 students find a job before graduating)
- **Average gross annual salary** (with bonuses) €50k

ALUMNI

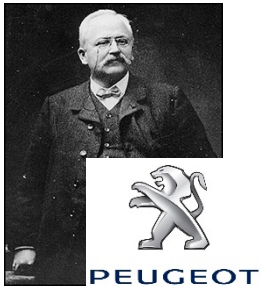
- The CentraleSupélec alumni network includes more than **35 000 active professional engineers** throughout the world
- **4 000 alumni abroad**
- Present **in 39 countries**
- Working in many fields including **industry, consulting, energy, finance**
- **Business leaders** (creating, managing, developing companies), engineering experts in corporate or public research, entrepreneurs

CENTRALESUPELEC : SOME FAMOUS ALUMNI

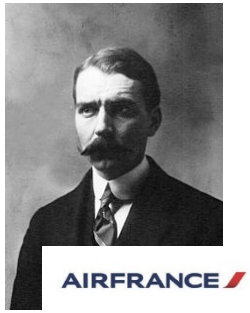
CentraleSupélec

Historical

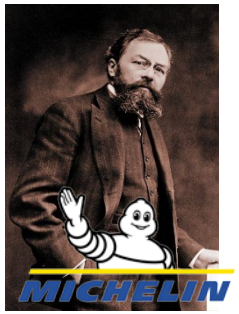
Gustave Eiffel



Armand Peugeot



Louis Charles Breguet



André Michelin

Mid-20th century

Francis Bouygues

Gérard Pélisson

Jean-Luc Lagardère

Now

Sidney Toledano

Alain Benichou

Delphine Ernotte

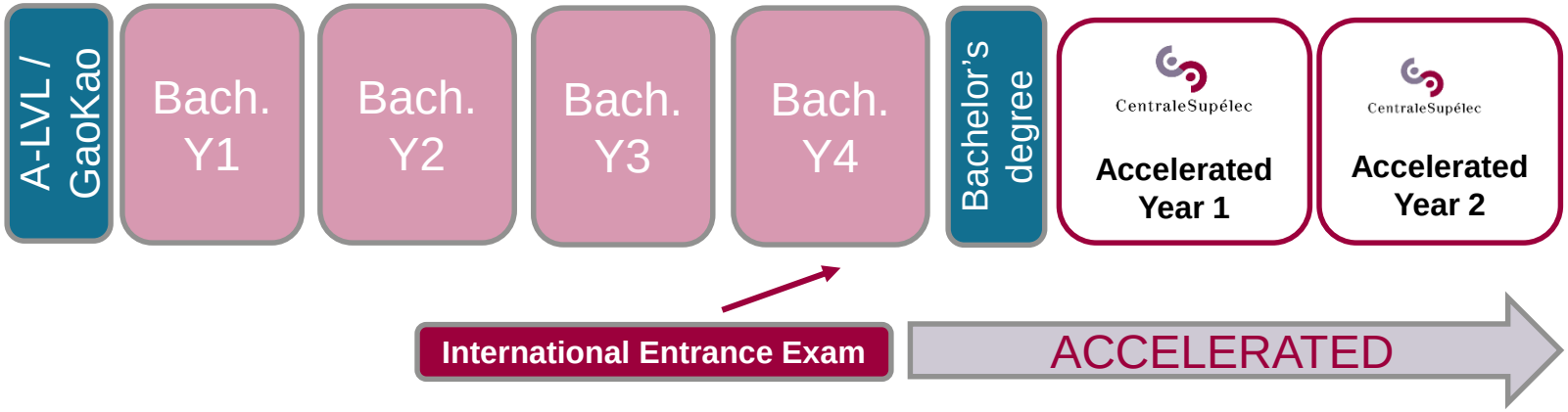
Benoît Potier

CENTRALESUPELEC INTERNATIONAL ACCELERATED ENGINEERING PROGRAMME

OUR ACCELERATED PROGRAMME TRAINS YOU TO BECOME AN OUTSTANDING FRENCH ENGINEER IN ONLY 2 YEARS!

French student path to our *Diplôme d'ingénieur*

Accelerated path to our *Diplôme d'ingénieur*



DIPLÔME INGENIEUR CENTRALESUPELEC

INTERNSHIPS AND JOB OFFERS FROM FRENCH AND INTERNATIONAL COMPANIES

CentraleSupélec

BNP PARIBAS
EDF
orange
Rte Le réseau de transport d'électricité
GROUPE CRÉDIT AGRICOLE
Capgemini
BOUYGUES CONSTRUCTION
RENAULT
MICHELIN Une meilleure façon d'avancer
ENEDIS L'ELECTRICITE EN RESEAU
THALES
amadeus
egis
McKinsey&Company
Theodo
SAFRAN AEROSPACE·DEFENCE·SECURITY
Schlumberger
SOCIETE GENERALE
COLAS
TOTAL
HUAWEI
IBM
NOKIA
Deloitte.
Parrot
SNCF
VINCI CONSTRUCTION
suez
AIRFRANCE
Valeo
MAZARS
AREVA
Sagemcom
Roland Berger
AIR LIQUIDE
fives
SANOFI
OLIVER WYMAN
LVMH
Carrefour
Christian Dior COUTURE
amazon
ArcelorMittal
vallourec
THOMSON REUTERS
BCG The Boston Consulting Group
EIFFAGE
DASSAULT AVIATION
L'ORÉAL
ZODIAC AEROSPACE

YOU WILL BECOME…

A top-level science & engineering professional:
multi-disciplinarity, integration, modelling and abstraction, complex systems

A committed leader and team player with professional and social skills:
adaptable, pragmatic, innovative, leader, entrepreneur, team player, committed, responsible

Internationally at ease, and professional skilled in a global environment:
living and working in a globalized environment; prepared to tackle global and local challenges; multilingual; trained for the multicultural, multisite workplace

HIGHLIGHTS OF THE PROGRAMME

Combining the tradition of scientific excellence with innovation, technology and corporate spirit

Learn to tackle complex engineering problems and develop professional and personal skills

Year 1: Introductory courses in fundamental sciences, elective courses to prepare specialisation

Year 2: Advanced courses in sciences and engineering, 6-month internship and collaborative projects

HIGHLIGHTS OF THE PROGRAMME
Year 1

The tailor-made curriculum offers a choice from a wide range of courses to support your career aspirations. Examples can be found in the catalogue*

1. **Fundamental sciences (Mathematics and Physics) and multi-disciplinary engineering courses**
2. **Elective courses to prepare your specialisation**
3. **Team projects, languages, soft skills, business sciences, humanities, social sciences and sports**

***Courses are subject to suitability and availability and may change during the course of study.**

8 FIELDS OF STUDY

- Energy (ENE)
- Large Scale Interacting Systems (GSI)
- Computer Science (InfoNum)
- Mathematics and Data Science (MDS)
- Physics and Nanotechnology (PNT)
- Biotechnology and Environmental Engineering (VSE)
- Communicating systems and Internet of Things (SCOC)
- Civil Engineering and Transportation(CVT)

HIGHLIGHTS OF THE PROGRAMME
Year 2

CentraleSupélec

Profession	ST 9 Major	Profession	SG 10 Concentration	Profession	SG 11 Concentration	Internship

Energy
- Energy Resources [PS]
- Energy Networks & Smart Grids [PS]
- Energy transition [PS]

Biotechnology & environmental eng.
- Environment / Sustainable Production [PS]
- Healthcare & biomedical services [PS]

Mathematics & Data Science
- Mathematical Modeling & Simulation [PS]
- Data & Information Science [PS/M]

Physics & Nanotechnology
- Physics & Photonics [M]
- Quantum Engineering [PS]

Large-Scale interactive Systems
- Control Engineering [PS /R]
- Design and System Sciences [PS]
- Supply Chain & Operations Management [PS]

Internet of Things & Communication Systems
- Smart Networks Systems [PS]
- Connected Objects & Embedded Systems [R]
- Mobile Communicating Systems [PS]

Computer science
- Software Design [PS]
- Artificial Intelligence [PS]
- Architecture of Information Systems [PS]
- Cybersecurity [R]

Civil eng. & Transportation
- Construction & Urbain Engineering [PS]
- Mechanical & Aerospace Engineering PS]

PS = campus of Paris-Saclay
R = campus of Rennes
M = campus of Metz

2 WORKSHOPS TO PREPARE STUDENTS FOR CAREER OPPORTUNITIES

8 Professions available:

	CVT	ENE	GSI	InfoNum	MDS	SCOC	PNT	VSE
Research	•	•	●	•	●	●	●	●
Innovation / Development / Service	•	●	●	●	•	●	·	•
Complex System Conception	●	•	●	•	•	●	•	●
Project Management	●	●	•	●	·	·	·	●
Operations Management	•	•	●	·	·	·	·	●
Business Analytics	•	●	●	●	●	•	•	•
Sales	·	·	•	•	·	●	·	·
Entrepreneur	•	•	·	●	•	●	●	●

CVT - Civil Engineering and Transportation
ENE - Energy
GSI - Large Scale Interacting Systems
InfoNum - Computer Science
MDS - Mathematics and Data Science
SCOC - Communicating systems and Internet of Things
PNT - Physics and Nanotechnology
VSE - Biotechnology and Environmental Engineering

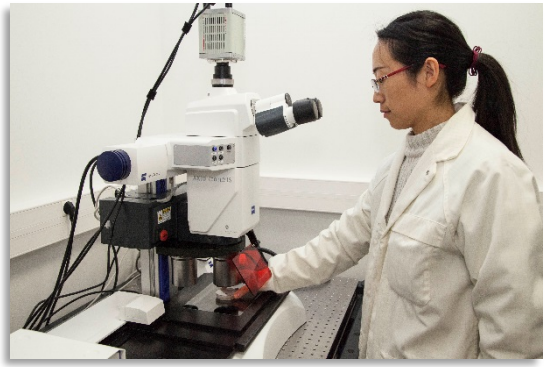
SPECIAL SERVICES

Services dedicated to the Accelerated Engineering Degree Programme students:

- Tailored courses/training: more than 60% of English taught courses for the whole programme
- French language courses to help students reach the required level
- Coaching in Maths & Physics
- Assistance with finding an internship
- Mentoring by CentraleSupélec alumni, professors and peers in career, studies and campus life aspects

COMING TO CENTRALESUPELEC: WHY?

- Obtain a Master's level degree at one of the best European Institutions
- Develop skills for lifelong learning in a changing world
- Take on science and technology challenges in business and industry
- Access a broad range of recruiters
- Join an active, global alumni network
- Experience life in France



AN INCREDIBLE STUDENT LIFE

There are more than 200 student associations and special interest groups at CentraleSupélec:

- **Campus life** (BDE, CS Racing Team, Club Tech)
- **Business** (Junior CentraleSupélec, FORUM)
- **Humanitarian** (ISF-Impact, Cheer up)
- **Arts & Culture** (CS Design, Club Rock, Magics)
- **Sports** (Football, Basketball, Handball)
- **Events** (Toss, Raid, Cercle Europe)

APPLICATION PROCESS

By 14 April 2019	Online application
19 April 2019	Candidate selection for written and oral examinations
6 May 2019	Sit the written examination at our approuved exam centres
8-15 May 2019	Sit the oral examination in Paris or Beijing
End of May 2019	Announcement of results
Mid-June 2019	Candidates' acceptance

PRACTICAL INFO

Who can apply?

- Students who hold a 4-year Bachelor of Science or Engineering from a non-French university
- 3d and 4th year Bachelor students in Science or Engineering from a non-French university
- Candidates may only apply once

What degree will I get after the programme?

- Students will obtain the CentraleSupélec engineering degree, Master's equivalent (the degree that French engineering students obtain at CentraleSupélec)

Housing and living costs

- A room or shared apartment is guaranteed on campus for this programme at an average cost of €400/month
- Average living costs in Paris for students is around €800/month (including accommodation)

Campus life

- A new and vibrant campus 25km south of Paris easily accessible by public transport
- A well-planned green campus landscape supporting CentraleSupélec's commitment to ecological sustainability
- An array of essential facilities including cafeteria, library, co-working spaces and gym

FINANCIAL INFORMATION

Tuition fees for the Accelerated Engineering Degree Programme

€18,000/year

Partner university fees

Candidates studying for a Bachelor's degree or holding a Partner university Bachelor's are entitled to a reduced fee of **€12,000/year.**

CentraleSupélec Scholarship

Scholarships available for students with highest scores

Start of the programme

September 2019 – Start of the programme for candidates selected in the 4th year of Bachelor's degree
September 2020 – Start of the programme for candidates selected in the 3rd year of Bachelor's degree

- *Partner universities in China include: Beihang, Tsinghua, Shanghai Jiaotong, Xi'an Jiaotong, Zhejiang U, Beijing Institute of Technology, USTC (Hefei), Harbin Institute of Technology, BUPT, Huazhong*
- *This list is not exhaustive. Please contact us for further information at :* accelerated_eng_prog@centralesupelec.fr

PHASE 1 – ONLINE APPLICATION

Apply online : http://centralesupelec-accelerated-progr.fr/registration/

Mid-February – 14 April 2019

All elements of the application must be in either English or French and must be submitted in pdf format

- Photocopy of passport or national identity card or equivalent documentation from candidate's country of residence
- Identity photograph
- CV
- Transcript of grades obtained during bachelor's degree, including first semester of current year
- English or French language certificate (there is no mandatory minimum level, however some indication is required that the candidate is capable of sitting the examination)
- Official school-leaving diploma (e.g. Baccalauréat, Gaokao, A-level, SAT, International Baccalaureate)
- Official results of GRE or Tage Mage standardised tests (optional but recommended)
- Motivation letter
- Letter(s) of recommendation (optional)
- Online application form, completed and signed

The online application will be used to determine which candidates will be invited to sit the written and oral examinations.

The following documents will be requested before you enter the programme if your application is successful:

- English test : to show a minimum IETLS score of 6.5 or a TOEFL score of 550 for a paper-based test and of 77 for an Internet-based test

PHASE 2 – WRITTEN AND ORAL EXAMINATIONS

If selected, you will be invited to sit the written and oral examinations at the exam centres you will have chosen upon application:

Written examinations : 6 May 2019
Oral examinations: 8-15 May 2019

Depending on your academic background, you will take different series of tests

	Bach. in Maths/IT/ Computer Sc. and related	Bach. in Physics Sc. and related	Bach. in Mechanical Eng. and related	Bach. in Electrical Eng. and related
WRITTEN TESTS (3 hrs)	Maths 2 hrs	Physics 2 hrs	Mechanical eng 2 hrs	Electrical eng. 2 hrs
	MCQ in Maths & Physics 1 hr	MCQ in Maths 1 hr	MCQ in Maths 1 hr	MCQ in Maths 1 hr
ORAL TESTS (3 hrs)	Maths 45 mn	Physics 45 mn	Mechanical eng. 45 mn	Electrical eng. 45 mn
	Physics 45 mn	Engineering topic 45 mn	Maths 45 mn	Maths 45 mn
	Interview 30 mn	Interview 30 mn	Interview 30 mn	Interview 30 mn

The scope of the tests and last year's exam topics are available on the website :
http://www.centralesupelec-accelerated-progr.fr

CONTACT INFORMATION

Any questions?

- **General information on the programme**

http://www.centralesupelec.fr/en/accelerated-engineering-degree-masters-level

- **Application to the programme**

http://www.centralesupelec-accelerated-progr.fr

- **Contact us by email**

accelerated_prog_eng@centralesupelec.fr