Skoltech
Skolkovo Institute of Science and Technology

Energy Systems Science and Engineering

Master of Science Program

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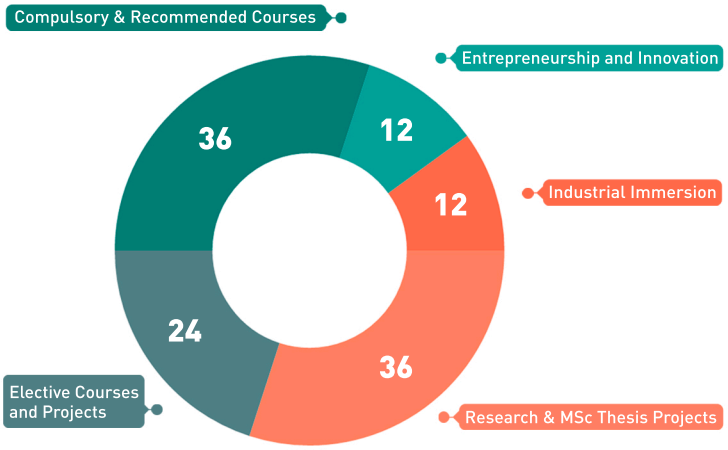
Full-time **2 year** program | **120 ECTS**



Students may specialize in:

A Math

B Engineering and Physics

Skoltech CES

The main principle of research followed in Skoltech Center for Energy Systems (CES) is an interdisciplinary approach. We are employing or collaborating with researchers representing wide variety of disciplines (engineers, mathematicians, physicist, economists, etc.) in order to utilize advances in new technologies (ICT, communication networks and sensing) and algorithms (distributed control, networks science, complex systems) and to create a cyber-physical energy system able to deal with the challenges of the 21st Century.

crei.skoltech.ru/energysystems

№	Compulsory Courses		
1	Introduction to Power Systems	A	B
2	Energy Systems (Physics) and Technology	A	B

№	Recommended Electives		
1	Large-Scale Optimization and Applications	A	
2	Stochastic Modeling and Computations	A	
3	Graphical Models	A	
4	Power Markets and Regulation		B
5	Smart Grids		B
6	Advanced Energy Systems: Electric-, Gas- & Heat	A	B
7	Theoretical Engineering for Energy Systems: Optimization, Control and Data Science	A	B
8	Thermodynamics of Energy Smart Grids		B
9	Thermo-Electricity for Energy Conversion		B
10	Numerical Linear Algebra	A	
11	Optimization Methods	A	
12	Machine Learning	A	
13	Organic Materials for Electronics, Photonics, Energy Generation and Storage		B
14	Introduction to Data Science	A	B
15	Statistical Physics	A	B
16	Introduction to Petroleum Engineering	A	B
17	Random Processes	A	B

№	Entrepreneurship and Innovation
1	Innovation Workshop
2	Ideas to Impact: Foundations for Commercializing Technological Advances
3	Intellectual Property and Technological Innovation

Elective Courses

See at the Skoltech Course Catalogue:
skoltech.ru/en/education/course-catalogue

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