

1st International Summer School on Micro and Nano-fabrication tools for innovating applied electronics and fundamental research

# MINATO Summer School 2024



Do you wish to develop your knowledge in Micro and Nano-fabrication tools or Nanotechnology, while traveling the world, discovering french "*art de vivre*", and meeting new people from different cultural backgrounds ?



In the south of France, you will study within a high-ranking French engineering institute, INSA TOULOUSE, and have the chance to fabricate your own device in **clean room** and research facilities.

Micro and Nano technologies are nowadays "Key Enabling Technologies" for innovating applied science and fundamental research in numerous experimental field.

Get micro-nano fabrication skills thanks to MINATO, with a unique hands-on interdisciplinary teaching method approach mainly based on Lab Work (> 50% of time) in a clean room.



Dates :

June 24, to July 5, 2024 or  
June 24, to July 19, 2024.

Earn **ECTS** credits:

5 for 2 weeks  
10 for 4 weeks.

Toulouse, France



<https://www.aime-toulouse.fr/summer-school-minato/>

nano X  
NANOSCALE SCIENCE AND ENGINEERING



INSA  
TOULOUSE



Design your own summer school program!  
Pick one track for 2 weeks summer school and two tracks for 4 weeks summer school.



**TRACK 1**  
**Microelectronics**  
MOS (metal-oxide-semiconductor) technology



**TRACK 2**  
**Energy**  
Integrated energy harvesting and storage technologies



**TRACK 3**  
**Nano chemistry**  
Chemical sensors based on nano-objects



**TRACK 4**  
**Nano physics**  
Remarkable properties of devices integrating 2D materials



**TRACK 5**  
**Quantum technology**  
Ultrasensitive Sensors and quantum cryptography  
Only for 4 weeks program.

and a compulsory track: French Culture and Language.



Activities: Guided tour in World heritage sites by UNESCO (Carcassonne, ..) and typical French cities; Visit of **AIRBUS** facilities, CNRS Laboratories; Typical French food ; 14th of July celebration...

**Who can apply:** All Science and Engineering students with undergraduate or graduate level ( $\geq$  bachelor of science in mathematics, physics, chemistry, materials, electronics) including **PhD students**. Preliminary entry-level on-line courses refreshing the required topics provided.

**Fees:** # full cost - 2950 € for 2 weeks or 4750 € for 4 weeks program, (accommodation, lunch, social events, and visits included).

# discount - 2100 € for 2 weeks or 3100 € for 4 weeks program, for INSA Toulouse partner universities.

**Application deadline: 22/04/2024**

Educational  
Manager: Prof.  
Marc RESPAUD



More information: Detailed program, practical information and the registration link : <https://www.aime-toulouse.fr/summer-school-minato/>

