

What is IAAC?

The **Institute for Advanced Architecture of Catalonia (IAAC)** is a centre for research, education, production and dissemination, with the mission of shaping the future habitat and building it in the present. It is located in the Poblenou's district of Barcelona, the 22@ neighbourhood, an innovation hub for companies and institutions oriented towards the knowledge society.

IAAC uses the digital revolution at all scales (from bits to geography, micro-controllers to cities, materials in the territory) in order to extend the boundaries of architecture and design and meet the great challenges of humanity. IAAC is an experimental centre, where you learn by doing, through a methodology that promotes finding real solutions on a real scale.

The Institute has been offering academic programmes in the field of advanced architecture and urban planning, design, interaction and digital manufacturing for more than 17 years. Beyond its educational and research work, the centre is an international, multicultural and interdisciplinary community that seeks permanent contact and cooperation among the hundreds of professors, researchers, institutions and companies that have worked with us or that seek to provide solutions to the great challenges of humanity.

Part of the IAAC includes the **Fab Lab Barcelona**, a manufacturing laboratory oriented to architecture and design that is part of the worldwide Fab Labs network created by the MIT Center of Bits and Atoms (USA). IAAC also has the Green Fab Lab, located at IAAC campus in the Natural Park of Collserola **Valldaura Labs**, a research centre that is currently oriented towards self-sufficient and sustainable solutions.

Valldaura Self-Sufficient Labs: IAAC's Green Campus

Valldaura Labs is a pioneering centre in developing a new concept of habitability that places people at the centre of all actions. Local self-sufficiency in environmental use is encouraged and knowledge expansion is promoted through participation in global information networks to share and generate progress. The Valldaura campus is a large park and innovation laboratory located in the Natural Park of Collserola in Barcelona, which has the latest technologies in the field of energy, information and manufacturing.

Valldaura has three laboratories: the **FoodLab**, the **EnergyLab** and the **Green FabLab** that aim to investigate the specificities of the production of key elements related to self-sufficiency: food, energy and sustainable ideas, combining the ancestral knowledge that connects us with nature and the latest advanced technologies.

IAAC in figures

17 years of history

- 8 master's degree courses, 1 postgraduate and 1 professional course
 - Master in Advanced Architecture (two modalities: 1 year / 2 years)
 - Master in City and Technology (two types: 1 year / 2 years)
 - Master in Advanced Interaction
 - Master in Robotics and Advanced Construction
 - Master in Advanced Ecological Buildings
 - Master in Design for Emergent Futures (with Elisava)
 - Open Thesis Fabrication Programme (postgraduate)
 - Fab Academy (from Fab Lab Barcelona)
-
- 150 students from 50 different countries: India, Turkey, Iran, China, Lebanon and the United States; among the countries with the greatest presence at IAAC.
-
- 1,000 alumni from 70 countries

3 locations

In **Poblenou's District** of Barcelona:

IAAC 22@, with 2,000 m² of space for research, production and dissemination of advanced architecture and urban planning, which houses the first Fab Lab and the largest in the European Union.

IAAC Atelier with 1,100 m² is a spacious space open to students of the center so that they can develop their research and prototypes. A place dedicated to experimentation in the field of digital manufacturing and advanced architecture.

Valldaura Self-Sufficient Labs, with 140 hectares of Collserola Natural Park to investigate self-sufficient habitats.

IAAC participates in 15 European innovative projects (**Horizon 2020, Creative Europe and Erasmus +**) in the fields of advanced urban planning and architecture, intelligent cities and digital innovation, urban self-sufficiency and citizen technology.