



# INTER-IoT

## 3rd Edition

## Integrator & Manager of Internet of Things Systems

[www.dimes.unical.it/content/master-di-ii-livello-inter-iot](http://www.dimes.unical.it/content/master-di-ii-livello-inter-iot)



Istituto di Calcolo e Reti ad Alte Prestazioni



The goal of our 2nd level Master is the professional training of a new ICT expert: the integrator and manager of systems based on Internet of Things (IoT) technology. The new professional will have high technical skills as well as business competences in the ICT area, being responsible of the technical management (including analysis, design, implementation and maintenance) of complex IoT systems and their integration. Such new professional is emerging both at National and International levels due to the pervasive and fast diffusion of the IoT technology in the context of strategic application domains such as e-Health, Smart City, Automotive, Logistics, Smart Home and Buildings, wearables and in all those sectors and subsectors that will be enabled by IoT technologies. The specific skills of such trained professionals will allow them to be easily inserted in large enterprises, small-medium enterprises, utility companies, city councils, and research institutions that are involved (or will be involved in the near future) in the development and/or management of IoT Systems, as it is evident from the state of the art and current trends in the ICT sector.

### Information

Course delivery	On-line - Taught in English
Duration	12 months
Start date	February 2021
End date	January 2022
N. students	[n. max 20 – n. min 12]
N. non-examination students	[max n. 3]
Frontal lessons (lessons, exercises, use cases, etc)	[n. hours 220 (n. Credits 30)]
Asynchronous Learning	[n. hours 100 (n. Credits 10)]
Training on the job (TOJ)	[n. hours 300 (n. Credits 12)]
Final Report	[n. hours 180 (n. Credits 8)]
Total amount of hours	n. hours 1500 (n. Credits 60) including individual study
Tuition fee	2000 euros

Call: [https://unical.portaleamministrazionetrasparente.it/archivio22\\_bandi-di-concorso\\_0\\_6353\\_874\\_1.html](https://unical.portaleamministrazionetrasparente.it/archivio22_bandi-di-concorso_0_6353_874_1.html)  
 Applications: <https://unical.esse3.cineca.it/>

### Teaching modules

**Module 1: IoT Systems Development: Programming, Engineering Methods and Big Data Analytics:**

- 1.1 IoT Systems Programming – Software level (resp. Prof. Fortino)
- 1.2 IoT Systems Implementation – Hardware level (resp. Prof. Corsonello)
- 1.3 Big data analytics for IoT systems (resp. Prof. Flesca)
- 1.4 Techniques and Tools for the Development of IoT Applications (resp. Prof. Spezzano)

**Module 2: Methodologies for IoT Systems Management: Security, Integration Methods, Business Process Management and Models:**

- 2.1 Security of IoT Communications (resp. Prof. Aloï)
- 2.2 Integration and Interoperability of IoT Systems (resp. Prof. Gravina)
- 2.3 Business Process Management and IoT (resp. Prof. Guzzo)
- 2.4 Business Models for IoT (resp. Dr. Scarpelli)

**Module 3: Training on-the-job:**  
 Development of a project in a partner organization.

### Organizing Committee

Giancarlo Fortino - *Director of the Master*  
 Prof. of Computer Engineering, UNICAL  
 Pasquale Corsonello  
 Prof. of Electronics Engineering, UNICAL  
 Sergio Flesca  
 Prof. of Computer Engineering, UNICAL  
 Gianluca Aloï  
 Prof. of Telecommunications Engineering, UNICAL  
 Giandomenico Spezzano  
 Research Director, ICAR-CNR

### Scientific and Technical Committee

Prof. Giancarlo Fortino, DIMES - UNICAL  
 Prof. Sergio Flesca, DIMES - UNICAL  
 Prof. Pasquale Corsonello, DIMES - UNICAL  
 Prof. Gianluca Aloï, DIMES - UNICAL  
 Prof. Giandomenico Spezzano, ICAR-CNR  
 Prof. Natale Arcuri, DIMEG - UNICAL  
 Dr. Giorgio Scarpelli, NTT Data S.p.A.  
 Ing. Vincenzo D'Agostino, Omnia Energia S.p.A.  
 Dr. Michele De Buono, SCAI Lab  
 Prof. Valeria Fionda, DEMACS – UNICAL  
 Prof. Mario Cannataro, University Magna Grecia (CZ)  
 Prof. Antonio Liotta, University of Bozen  
 Prof. Carlos Palau, Universitat Politècnica de Valencia (Spain)  
 Prof. Noel Crespi, Institut Mines-Telecom (France)  
 Prof. Wenfeng Li, Wuhan University of Technology (China)  
 Prof. Mengchu Zhou, New Jersey Institute of Technology (USA)  
 Prof. Marcello La Rosa, Univ. of Melbourne (Australia)

### Administrative headquarters

Via Pietro Bucci, cubo 41C  
 Department of Informatics, Modeling, Electronics, and Systems (DIMES), University of Calabria  
 87036 Rende (Cosenza) ITALY

Tel. +39.0984.494063, Fax. +39.0984.494713  
 masterinteriot@dimes.unical.it

### Class Location

On-line via MS Teams and Distretto DOMUS - Univ. of Calabria, Centro Residenziale Chiodo 2 - Rende (CS)

### Professional outlets

The 2nd level Master allows to acquire conceptual tools and technical/scientific skills suitable to satisfy the needs of several professional figures such as:

- Professionals able to define and manage the main organization processes, policies and models in the IoT context inside an organization.
- Professionals able to develop innovative IoT systems in various application domains.
- Professionals able to integrate even heterogeneous IoT systems in various application domains.
- Professionals able to develop and manage business models for IoT systems.

The expert of integration and management of IoT systems finds employment in enterprises, research institutions, public companies, and in all those organizations that directly or indirectly focus on the development, integration, and management of IoT systems.

### Enrollment requirements

Candidates should have one of the following MSc-level (1st level Master) degrees:

1. *Laurea magistrale ex D.M. 270/04 or specialistica ex D.M. 509/99* in the class of Information Engineering or in the class of Information Science and Technologies.
2. *Laurea magistrale ex D.M. 270/04 or specialistica ex D.M. 509/99* in one of the following areas: Engineering, Mathematics, Physics, Science, and Statistics.
3. *Laurea vecchio ordinamento (antecedente D.M. 509/99)* or Master of Science degree at foreign universities of a duration of at least 4 years, equivalent to one of the degrees at points 1 or 2.

### Sponsor Institutions and Companies

#### Institutions

- ICAR-CNR
- Distretto DOMUS
- Ordine degli Ingegneri della Provincia di Cosenza
- Polo Smart Manufacturing
- ASI UNICAL
- IEEE SMC Society (Italy Chapter)

#### International Universities

- Universitat Politècnica de Valencia (Spagna)
- Wuhan University of Technology (Cina)
- New Jersey Institute of Technology (USA)
- Institut Mines-Telecom (Francia)
- University of Melbourne (Australia)

#### Companies

- NTT Data S.p.a.
- SCAI Lab

- Omnia Energia S.p.a.
- Talent Garden Cosenza
- Sensyscal S.r.l.
- E Way Enterprise Business Solutions S.r.l.
- Webgenesys S.r.l.
- ITHEA S.r.l.
- Fairs Wind Digital S.r.l.
- Easyanalysis S.r.l.
- IFM S.r.l.
- Artaud S.r.l.



### About us

<https://www.dimes.unical.it/content/master-di-ii-livello-inter-iot-dicono-di-noi>