DIMES

Dipartimento di Ingegneria Informatica, Modellistica, Elettronica e Sistemistica

Università della Calabria
Via Pietro Bucci, Cubo 42C
87036 Rende (Cs)

info
Tel. (+39) 0984.49.4718

Course in English

Telecommunication Engineering: Smart Sensing, Computing and Networking

DIMES
DIPARTIMENTO
DI ECCELLENZA
2018 - 2022

MiUr

UNIVERSITÀ DELLA CALABRIA

DIPARTIMENTO DI **INGEGNERIA INFORMATICA, MODELLISTICA, ELETTRONICA E SISTEMISTICA**

dimes.unical.it

Master Degree Course in

Telecommunication Engineering: Smart Sensing, Computing and Networking

Context

The Master of Science (MSc) in **Telecommunication Engineering: Smart Sensing, Computing and Networking** provides students with in-depth knowledge and practical skills on the design, development and management of advanced telecommunication systems. Due to its marked cross-curricular approach, it provides a multidisciplinary training with innovative courses in the areas of waves communication, computer science and telecommunication networks and systems.

The program offers lectures (in English), and learning-by-doing teaching with laboratories, seminars and internships in Telecommunications, Wavefield and Information Technology research centers and companies. The final thesis project offers students the opportunity to develop further specific skills in the framework of hands-on experiences at international ICT research labs.

Learning objectives and outcomes

The MSc in **Telecommunication Engineering: Smart Sensing, Computing and Networking** aims to provide the necessary skills to work in all areas of Telecommunication Engineering. Its main objective is to build high-level professionals, with a solid background, a multidisciplinary knowledge on modern technology development, and the capacity to face the challenges for the realization of a smart society.
In particular, graduates will possess high expertise on IoT systems and applications, smart systems, wireless sensors, next-generation mobile networks (5G/6G), smart antennas, modern radar systems, machine learning, IoT security, cloud/edge computing, programmable networks and devices.

Employability and careers

Graduates with a MSc in "Telecommunication Engineering: Smart Sensing, Computing and Networking" find employment as experts in:
– design, production and management of 5G and 6G telecommunication networks and systems;
– design, production and management of radar systems for smart mobility and localization;
– development of advanced ICT applications aimed at different vertical markets (such as smart home, smart city, environmental monitoring, smart health and telemedicine).

Skills and methodologies acquired in the study program will enable graduates to either find employment or work as freelance for: network and telecommunication system operators and manufacturers, radio system operators, system integrators and consulting companies, developers and providers of ICT applications and services.

Main topics
– Simulation and Performance Evaluation
– Networking aspects of Internet of Things
– Antennas and Propagation
– IoT Sensor Device Programming
– IoT Mobile Device Programming
– Wireless Devices and Networks
– Telecommunication Systems Measurements

Keywords
**Smart sensors
smart systems
5G/6G networks
IoT
radar systems
wireless and mobile propagation.**
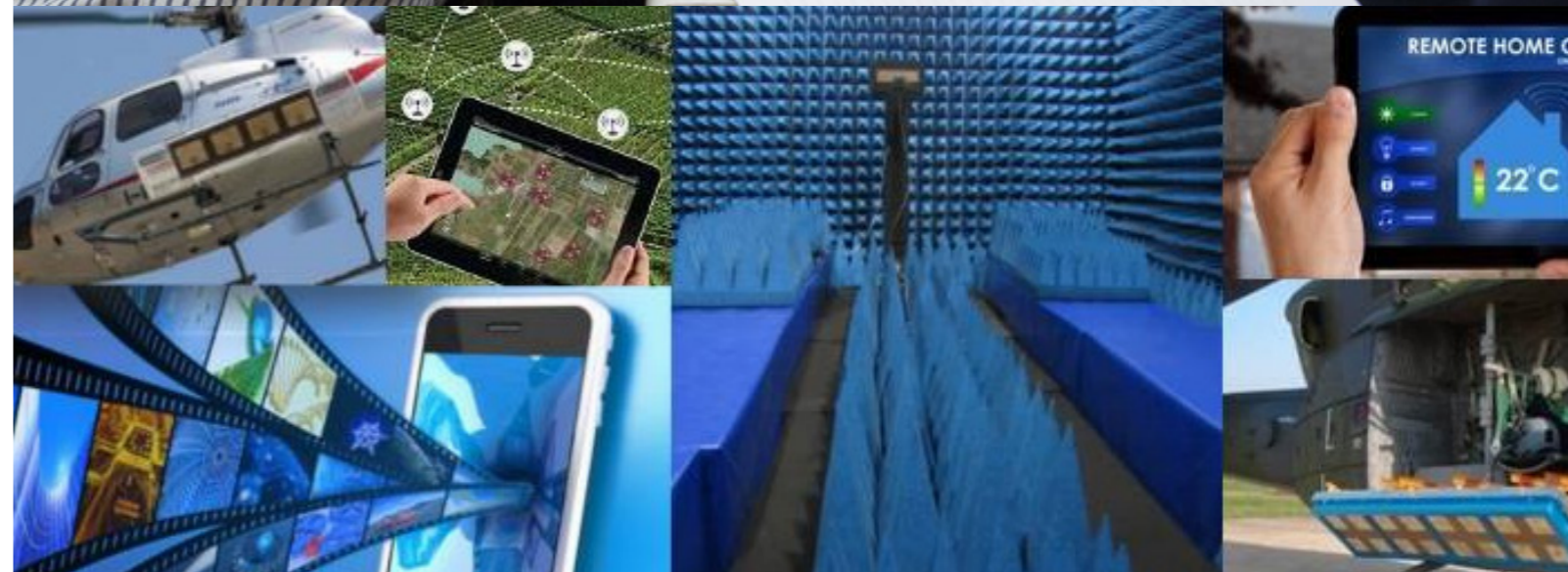
Duration: 2 years
Start date: October 1, 2021.
Total amount of hours (number of ECTS credits): 3000 hours (120 ECTS credits)
Admission requirements: A minimum of three-year undergraduate degree (or equivalent) in a related field, with preference to graduates in Computer Engineering, Telecommunication Engineering, Computer Science, Electronics Engineering and Information Technology.

for details dimes.unical.it/content/ingegneria-telecomunicazioni