

# VERBALE DEL CONSIGLIO DELLA SCUOLA DI DOTTORATO DEL POLITECNICO DI BARI

*Seduta n. 5/2024*

*del 12/9/2024*

Il giorno 12/9/2024 alle ore 16:00, a seguito di convocazione del 2/9/2024, si è riunito in modalità telematica il Consiglio della Scuola di Dottorato del Politecnico di Bari, per discutere il seguente

## ORDINE DEL GIORNO

**P.1) Comunicazioni del Direttore**

**P.2) Ratifiche**

**P.3) Didattica Dottorale**

**P.4) Varie**

**SUPP 1) Dottorati in PA**

Sono presenti/assenti giustificati/assenti:

n	Nome e Cognome	Titolo	Presente	Assente Giustificato	Assente
1	Luigi Alfredo Grieco	Direttore Scu.Do. - Rappresentante DEI	x		
2	Giuseppe Pascazio	Pro Rettore	x		
3	Francesco Defilippis	Rappresentante DArCoD		x	
4	Antonio Messeni Petruzzelli	Rappresentante DMMM		x	
5	Gabriella Pugliese	Rappresentante DIF	x		
6	Michele Notarnicola	Rappresentante DICATEch		x	
7	Mario Carpentieri	Coordinatore di Dottorato DRIEI	x		
8	Giuseppe Casalino	Coordinatore di Dottorato DRIMEG (Cicli XXXVII e XXXVIII)	x		
9	Vito Iacobellis	Coordinatore di Dottorato DRSATE	x		
10	Caterina Ciminelli	Coordinatore di Dottorato SSI		x	
11	Marco Donato De Tullio	Coordinatore di Dottorato DRISA	x		
12	Mario Daniele Piccioni	Coordinatore di Dottorato DRISS			x
13	Mariagrazia Dotoli	Coordinatore di Dottorato DAUSY		x	
14	Giuseppe Fallacara	Coordinatore di Dottorato CTI	x		
15	Antonio Emmanuele Uva	Coordinatore di Dottorato DRIME		x	
16	Ilaria Giannoccaro	Coordinatore di Dottorato DRIG	x		
17	Orazio Giustolisi	Coordinatore di Dottorato DRISS		x	

18	Giuseppe Demelio	Coordinatore di Dottorato DRIMEG (Ciclo XXXVI)	x		
19	Carlo Moccia	Coordinatore di Dottorato CIPP (Ciclo XXXVII)		x	
20	Tania Leone	Rappresentante Dottorandi			x
21	Antonio Pavone	Rappresentante Dottorandi	x		

Alle ore 16:02, il Direttore, accertata la presenza del numero legale dei componenti, dichiara aperti i lavori del Consiglio. Viene nominato segretario il Prof. Marco de Tullio.

### P.1) Comunicazioni del Direttore

Nessuna comunicazione.

### P.2) Ratifiche

La Regione Puglia, ai sensi dell'art. 3, comma 1, del D.M. 23 marzo 2022, è tra le cinque regioni individuate per la sperimentazione del programma ministeriale "Dottorati InPA", iniziativa che prevede l'attivazione di n. 2 contratti di apprendistato di alta formazione (A.A.) e ricerca per ogni, della durata di tre anni, finalizzati al conseguimento del dottorato di ricerca in materie di competenza delle amministrazioni regionali.

In data 9/11, l'Ufficio Ricerca del Politecnico di Bari ha sollecitato con urgenza i Coordinatori dei Corsi di Dottorato ad avanzare proposte in risposta all'iniziativa "Dottorati InPA", lasciando poi alla SCUDO il compito di selezionare l'unica proposta che l'Ateneo avrebbe sottoposto alla fase di selezione Regionale.

Avendo ricevuto una sola istanza (formulata dalla Prof.ssa Calace) il Direttore della SCUDO ha quindi proposto di approvarne la candidatura come proposta di Ateneo (informando tempestivamente la SCUDO per via telematica).

La SCUDO ratifica all'unanimità.

### P.3) Didattica Dottorale

In risposta al bando "PRIMA PROCEDURA SELETTIVA PER IL CONFERIMENTO DI INCARICHI DI INSEGNAMENTO PRESSO LA SCUOLA DI DOTTORATO DEL POLITECNICO DI BARI PER L'A.A. 2024/2025" sono pervenute le seguenti candidature:

**Tabella n. 1.1: Elenco insegnamenti per i quali è stata ricevuta una singola candidatura**

Insegnamento	SSD	Collegio di dottorato proponente	CFU a bando	Candidato Docente
Research Methodology	ING-IND/31	DRIEI	2	Carnimeo Leonarda
Design and management of research projects	ING-IND/17	DRIG	2	Ranieri Luigi
Introduction to probability and statistical inference	MAT/05	DRIG	2	Caponio Erasmo

Introduction to partial differential equations and applications	MAT/05	DRIME	2	Pomponio Alessio
AI and creativity	ICAR/14	CTI	2	Cavaliere Ilaria
How to build an ontology that lasts for design matters: Theory	ICAR/20	DRSATE	2	Borgo Stefano
Physical Layer Security for wireless communication	ING-INF/02	SSI	2	Calò Giovanna
Advanced Fiber Optic Technologies for Biosensing	ING-INF/01	SSI	2	Saha Nabarun
Fundamentals of Radio Localization and Sensing	ING-INF/03	SSI	2	Fascista Alessio
Materials for the ecological transition	CHIM/07	DRSATE	1	Musio Biagia
Deep learning applications for Engineering Geology	GEO/05	DRSATE	2	Dogliani Angelo
Lab-and-field data acquisition and analysis for studying Hydraulic Processes	ICAR/01	DRSATE	2	De Padova Diana
Statistical methods for climate change detection and nonstationary probabilistic modeling.	ICAR/02	DRSATE	2	Totaro Vincenzo
Mathematical models for transportation systems	ICAR/05	DRSATE	1	Colovic Aleksandra
Sustainable Mobility and Shared Mobility in a Smart Cities framework: optimization models and applications	ICAR/05	DRSATE	1	Prencipe Luigi Pio
Adaptive Building Technologies for the Mitigation of Local and Global Climate Change	ICAR/10	DRSATE	2	Carlucci Francesco
Research in Architecture and Engineering Aided by Information Models: From BIM to Digital Twin for the Built Environment.	ICAR/11	DRSATE	1	Bruno Silvana
Analysis and representation techniques for building research	ICAR/17	DRSATE	1	Musicco Antonella
Complex knowledge management and intelligent systems for land and environmental engineering	ICAR/20	DRSATE	1	Patano Mauro

Multiscale models for materials science	MAT/07	DRSATE	2	Florio Giuseppe
Numerical and experimental modelling of heat transfer	ING-IND/08 ING-IND/11	DRISS	2	Jahanbin Aminhossein
Innovative devices for seismic risk protection	ICAR/09	DRISS	1	Foti Dora
Energy Production: Storage, Emerging Technologies & Social Challenges	ING-IND/10, ING-IND/35	DRISS	2	Ruggiero Francesco
Simulation Systems for Engineering Applications	ING-INF/04	DAUSY	1	Carli Raffaele
Simulation, optimization, and management of smart energy systems	ING-INF/04	DAUSY	1	Roccotelli Michele
Modeling and simulation of biosystems	ING-INF/04	DAUSY	2	Borri Alessandro
Dynamical stochastic models of biological systems	ING-INF/04	DAUSY	1	Palumbo Pasquale
Optimal Control for Climate Change and Air Quality	ING-INF/04	DAUSY	2	Carnevale Claudio
A user- centered approach to Ergonomics assessment in the Industry 5.0 paradigm	ING-IND/15	DRIG	2	Manghisi Vito Modesto
Metaverse Integration for Digital Transformation of industry	ING-IND/15	DRIG	2	Evangelista Alessandro
Basic concepts on elliptic equations	MAT/05	DRIG	2	d'Avenia Pietro
Mathematical methods in deep learning	MAT/05	DRIG	2	Orlando Gianluca
Smart sustainable manufacturing	ING-IND/16	DRIG	2	Dassisti Michele
Technological changes and transition perspective	ING-IND/35	DRIG	2	Albino Vito
Business models for circular supply chains	ING-IND/35	DRIG	2	Massari Giovanni Francesco
Exploring latest cybersecurity technologies and trends	ING-INF/03	DRIEI	2	Cianci Ilaria
Management of future telecommunication systems via pervasive intelligence	ING-INF/03	DRIEI	2	Rago Arcangela
Deep learning	ING-INF/05	DRIEI	2	Anelli Vito Walter
Machine learning	ING-INF/05	DRIEI	2	Ferrara Antonio

Innovative and recyclable methods and materials for Engineering applications	MAT/07	CMCEI	2	Fazio Vincenzo
Advanced Transportation Accessibility-Equity Assessment	ICAR/05	CMCEI	2	Giuffrida Nadia
Complex Network Theory: Theory, Methods and Applications	ICAR/02	CMCEI	2	Simone Antonietta
IoT Technologies for Digital Transition	ING-INF/03	CMCEI	2	Adnan Rashid
Contextual Design and Heritage: identity and material culture of the territories	ICAR/13	CTI	2	Cristallo Vincenzo
Design for Historical and Contemporary Heritage Landscapes	ICAR/14	ICAR/14	2	Scardigno Nicola
Theories and methods of design for the Antique	ICAR/14	CTI	2	Nitti Antonio
Problems and methods of contemporary restoration	ICAR/19	CTI	2	De Cadilhac Rossella
Theories and techniques of the project for the fragile cities and territories	ICAR/14	CTI	2	Tupputi Giuseppe
Stereotomic Design. New frontiers of stone architecture	ICAR/14	CTI	2	Cavaliere Ilaria
Spatio-Temporal dynamics of lasers: modelling and applications	FIS/03	DRISA	2	Brambilla Massimo
Mathematical Models for High Frequency Analysis	MAT/05	DRISA	1	Maddalena Francesco
Coding Theory	MAT/03	DRISA	1	Aguglia Angela
Acustica e Termoacustica	ING-IND/09	DRIME	2	Laera Davide
Hydraulic Turbomachines for Energy Recovery in Water Distribution Networks	ING-IND/09	DRIME	2	Stefanizzi Michele
Hydrogen for Sustainable Transportation Systems	ING-IND/08	DRIME	2	Saponaro Gianmarco
Offshore Wind Technologies	ING-IND/08	DRIME	2	Camporeale Sergio Mario
Optimization Theory	MAT/05	DRIME	2	Coclite Giuseppe Maria

Introduction to fluid-structure interaction	ING-IND/06	DRIME	2	Nitti Alessandro
NIR and MIR laser coupling with fibers	FIS01/FIS03/FIS07	SSI	2	Menduni Giansergio
Real-time Simulation and Hardware-in-the-Loop testing for Smart Energy Systems	ING-IND/33	SSI	2	Bruno Sergio
Extended Experiences for Smart and Sustainable Industry	ING-IND/15	SSI	2	Fiorentino Michele
Photonics for Industry 4.0	ING-INF/02	SSI	2	Magno Giovanni
Nanotecnologie per la transizione energetica	ING-IND/11	SSI	2	Berardi Umberto
Energy storage	ING-IND/08	SSI	2	Camporeale Sergio Mario
Smart energy cities	ING-IND/11	SSI	2	Berardi Umberto
Microwave Photonics for Smart Systems	ING-INF/01	SSI	2	Brunetti Giuseppe
Cutting-edge Nanomaterials for Advanced Technologies	CHIM/07	DRSATE	1	Lo Porto Chiara
Soil-atmosphere interaction and slope stability: processes and numerical modelling	ICAR/02 e ICAR/07	DRSATE	2	Tagarelli Vito
Advances in Geomatic Engineering	ICAR/06	DRSATE	2	Sonnessa Alberico
Advanced Probabilistic Methods For The Reliability Analysis In Structural Engineering Problems	ICAR/09	DRSATE	2	Ruggieri Sergio
Life Cycle Assessment for buildings	ICAR/11	DRSATE	1	Bruno Silvana
Laser scanning for architectural surveying. Techniques and applications.	ICAR/17	DRSATE	1	Buldo Michele
How to build an ontology that lasts for design matters (lab)	ICAR/20	DRSATE	1	Stufano Melone Maria Rosaria
Sustainable Technologies for Circular Economy in Waste Management	ING-IND/22	DRSATE	2	Labianca Claudia
Dynamic identification and structural monitoring: fundamentals and applications to wind turbines	ICAR/08 – ICAR/09	DRISS	2	Rizzo Fabio

Bridges and critical infrastructures: seismic risk and wind-structure interaction	ICAR/09	DRISS	2	Rizzo Fabio
Numerical and heat transfer challenges in Thermal Energy storage	ING-IND/10 ING-IND/8	DRISS	2	Jahanbin Aminhossein
Smart building	ING-IND/11	DRISS	2	Stasi Roberto
Indoor comfort evaluation	ING-IND/11	DRISS	2	Martellotta Francesco
Resilient and secure (historic) built environment in a multi-hazard perspective	ICAR/10	DRISS	2	Cantatore Elena
Distributed/Decentralized Control and Optimization of Large-Scale Systems	ING-INF/04	DAUSY	1	Carli Raffaele
Non-integer order systems and controllers	ING-INF/04	DAUSY	1	Maione Guido
Game Theory for Controlling Autonomous Systems	ING-INF/04	DAUSY	1	Scarabaggio Paolo
Data-driven fault diagnosis and fault prognosis	ING-INF/04	DAUSY	1	Ferracuti Francesco
Gaussian processes for modeling and control of robotics systems	ING-INF/04	DAUSY	2	Dalla Libera Alberto
Human Autonomous System Interaction	ING-INF/04	DAUSY	1	Iarlori sabrina
Intelligent Supervisory Systems	ING-INF/04	DAUSY	2	Simani Silvio
Introduction to autonomous systems	ING-INF/04	DAUSY	1	Longhi Sauro
Linear algebra for control applications	ING-INF/04	DAUSY	2	Pezutto Matthias
Linear and nonlinear Kalman filtering: theory and applications	ING-INF/04	DAUSY	2	Chisci Luigi
Learning in multi-agent systems	ING-INF/04	DAUSY	2	Bastianello Nicola
Non-linear control	ING-INF/04	DAUSY	2	von Ellenrieder Karl Dietrich
Variable Structure Control	ING-INF/04	DAUSY	1	Usai Elio

Lean production in the digital factory	ING-IND/17	DRIG	2	Sassanelli Claudio
Human-based Smart Manufacturing Systems	ING-IND/17	DRIG	2	Vitti Micaela
Smart and sustainable last-mile logistics	ING-IND/17	DRIG	2	Silvestri Bartolomeo
Management and Business research	ING-IND/35	DRIG	2	Messeni Petruzzelli Antonio
Inertial sensors	ING-INF/01	DRIEI	2	Dell'Olio Francesco
Design of optical fiber devices with Finite Element Method	ING-INF/02	DRIEI	1	Loconsole Antonella Maria
Electromagnetic design via professional softwares	ING-INF/02	DRIEI	1	Loconsole Antonella Maria
Green Photonics for a sustainable economy	ING-INF/02	DRIEI	1	Muhammad Khalid
Antenna Technology for 5G communications: propagation arrays and integration	ING-INF/02	DRIEI	1	Marasco Ilaria
Supervision and monitoring of renewable energy systems	ING-IND/31	DRIEI	1	Vergura Silvano
Micromagnetic modeling	ING-IND/31	DRIEI	1	Meo Andrea
Spintronics applications	ING-IND/31	DRIEI	1	Tomasello Riccardo
Power Systems Simulation Tools	ING-IND/33	DRIEI	2	Tricarico Gioacchino
Electric power system markets and planning	ING-IND/33	DRIEI	1	Dicorato Maria
Numerical Methods for Big Data	MAT/08	DRIEI	2	Popolizio Marina
Numerical Methods for Multidimensional Differential Problems	MAT/08	DRIEI	1	Coclite Alessandro
Elements of digital transition in civil engineering	ICAR/02	CMCEI	2	Laucelli Daniele Biagio
Innovation of business models in the civil infrastructure sector	ING-IND/35	CMCEI	2	Panniello Umberto
Innovative approaches and digital tools for ecological land planning	ICAR/20	CMCEI	2	Grassini Laura
Open Source and Innovative tools for simulating transport systems	ICAR/05	CMCEI	2	Giuffrida Nadia



Innovative techniques and methodologies for the reuse of materials in road, railway and airport constructions	ICAR/04	CMCEI	2	Coropulis Stefano
Road infrastructure for intelligent mobility	ICAR/04	CMCEI	2	Coropulis Stefano
The architecture of construction	ICAR/12	CTI	2	Panzini Nicola
The architecture of structural forms	ICAR/14	CTI	2	De Venuto Tiziano
Analysis and representation techniques for architectural research	ICAR/17	CTI	2	Castagnolo Valentina
The post-growth paradigm in planning research	ICAR/21	CTI	2	Annese Mariella
High-energy particle physics instruments and methods for space environment	FIS/01	DRISA	2	Loporchio Serena
Spacecraft Structural Dynamics & Loads	ING-IND/04	DRISA	2	Ciampa Francesco
Hypersonic aerothermodynamics modelling and simulation	ING-IND/06	DRISA	2	Ninni davide
Optical communications for space	ING-INF/02	DRISA	2	Marasco Ilaria
Space Commercialization	ING-IND/35	DRISA	2	Del Monte Luca
Space Economy: past, present, future	ING-IND/35	DRISA	2	Vittori Roberto
Integrated photonics in space	ING-INF/01	DRISA	2	Ciminelli Caterina
Hydraulics for aircraft	ING-IND/08	DRISA	2	Tamburrano Paolo
Design of User Experience to exploit Extended Reality for the enhancement of research activities	ING-IND/15	DRIME	2	Gattullo Michele
Non-Destructive Testing (NDT) : Process, Types and Applications in Mechanical Engineering	ING-IND/14	DRIME	2	D'Accardi Ester
Adjoint methods for gradient-based optimisation and control of energy systems	ING-IND/08	DRIME	2	Giannotta Alessandro

**Tabella 1.2: Insegnamento per cui risulta pervenuta richiesta di copertura per 1 CFU (su 2).**

Nuclear Techniques and Innovative Sensors for medical applications	FIS01/FIS07	SSI	1	Pugliese Gabriella Maria Incoronata
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**Tabella n. 2: Insegnamento con due candidature**

Insegnamento	SSD	Collegio di dottorato livello 3	CFU a bando	Nominativo Docente	CFU richiesti dal candidato Docente
Empirical research on sustainable innovation and resilience	ING-IND/35	DRIG	2	Dangelico Rosa Maria	1
Empirical research on sustainable innovation and resilience	ING-IND/35	DRIG	2	Pellegrino Roberta	1

La SCUDO delibera all'unanimità di:

- 1) assegnare tutti gli incarichi di docenza in Tabella 1.1 ai candidati che hanno presentato domanda
- 2) di suddividere l'insegnamento "Nuclear Techniques and Innovative Sensors for medical applications" in due moduli, assegnando il primo di essi alla Prof.ssa Pugliese.
- 3) di suddividere l'insegnamento "Empirical research on sustainable innovation and resilience" in due moduli (da 1 CFU ciascuno) da assegnare, rispettivamente, alle candidate Docenti Dangelico Rosa Maria e Pellegrino Roberta.

Segue l'elenco degli insegnamenti per i quali non risulta pervenuta alcuna domanda.

**Tabella n. 3: elenco degli insegnamenti per i quali non sono pervenute candidature.**

Insegnamento	SSD
Theory of formativeness	ICAR/14
Gender studies	ING-IND/35
Construction safety: legal and administrative aspects, technical standards	ICAR/08, IUS/17
Deep Reinforcement Learning for Control of Autonomous Systems	ING-INF/04
Advanced Additive Manufacturing and Reverse Engineering design and processes for the twin transition	ING-IND/16
Introduction to the Simplex Method	ING-INF/04
Rehabilitation Engineering	ING-INF/06
Theories and methods in structural design: modeling and experimental issues	ICAR/08

Generative Algorithms: digital tools for parametric design and assessment of structures	ICAR/09
Historical research and study of the Ancient architecture	ICAR/18-L- ANT/07
DoE and Robust Design applied to setup optimization for numerical and experimental testing	ING-IND/14
CONSERVATION LAWS IN CONTINUUM MECHANICS AND TRAFFIC MODELING	MAT/05
Microgrid structures and operation	ING-IND/33
Time-series databases for sensor data analysis	ING-INF/05
Mechanical models for masonry structures	ICAR/08
Seismic risk of reinforced concrete buildings: innovative modeling, analysis, and mitigation strategies	ICAR/09
Characterization and modeling of light alloy	ING-IND/16
Analysis and management of heritage buildings: efficiency and innovative technologies	ICAR/10 – ICAR/12
Control and Security of Cyber Physical Systems	ING-INF/04
From qualitative to quantitative methods in business research	ING-IND/35
Matlab recipes for measurement signal processing	ING-INF/07
Low carbon structural design and retrofitting of concrete infrastructures using advanced composites	ICAR/09
Innovative evaluation techniques to support the implementation and management of civil constructions	ICAR/22
Practical Course in physical modelling for coastal engineering	ICAR/02
Meteomarine forcing and design of maritime constructions	ICAR/02
Historical research and study of contemporary architecture and city	ICAR/18
Identification and propagation of optical photons in different media	FIS/01
Introduction to space flights	ING-IND/05 ING-IND/35
Space logistics	ING-IND/35
Contact Mechanics	ING-IND/13
Numerical Approaches to Solid and Applied Mechanics: Boundary Element Methods (BEM)	ING-IND/13
Digital Manufacturing for Biomedical Applications	ING-IND/16
Manufacturing modeling and simulation	ING-IND/16
Nuclear Techniques and Innovative Sensors for medical applications (modulo 2)	FIS01/FIS07

La SCUDO delibera all'unanimità di ribandire l'avviso di vacanza per gli insegnamenti in Tabella 3.

### **SUPP 1) Dottorati in PA**

Il punto decade sulle base del provvedimento a ratifica.

### **P.4) Varie**

Non emergono ulteriori punti di discussione. Pertanto, la seduta si scioglie alle ore 16:18. E' redatto il presente verbale, che viene letto e approvato seduta stante all'unanimità.

Il Direttore

Il Segretario  
*Luca Donato de'ullo*