## National University of Science and Technology Politehnica Bucharest Council for University Doctoral Studies

Doctoral School of
Industrial Engineering
and Robotics

Department: \*D\*; Doctoral field\*DF\*: Industrial Engineering\*IE\*, Mechanical Engineering\*ME\*, Engineering and Management\*EMg\*

## **Doctoral Scientific Areas**

No.	PhD Advisor	D	DF	Scientific Areas
	Prof.univ.dr.eng. BENDIC Vasile	RSP		Management and systems engineering
1			ΙE	Manufacturing processes and systems
				• Product development
				Advanced manufacturing systems
	Prof.univ.dr.eng. CONSTANTIN George	RSP	ΙE	Manufacturing processes
2				• Advanced modeling, simulation and optimization
				techniques
	Prof.univ.dr.eng. COTEŢ Costel Emil	RSP	IE	Smart manufacturing
3				Digital twining in industrial engineering
				Product Lifecycle Management
4	Prof.univ.dr.eng. DORIN	RSP	ΙE	Industrial Robot Modular Design
	Alexandru			Optimizing Devices for Driving Robots Systems
			ΙE	Machine Tool Performance and Precision
5	Prof.univ.dr.eng. GHIONEA	RSP		Maintenance Management
	Adrian	KSI		• Industrial Logistics
				Manufacturing Systems     Material Flory Modelling and Signal Signal
	Prof.univ.dr.eng. MOHORA	RSP	ΙE	• Material Flow Modelling and Simulation;
6	Cristina			• Vibration and Noise;
				• Assistive Devices.
	Assoc.Prof.univ.dr.eng. PASCU Elisabeta - Nicoleta	RSP	TE	• Industry 4.0;
7			ΙE	• Industrial Design
	Prof.univ.dr.eng. PREDINCEA Nicolae	RSP	IE	<ul><li>Computer Aided Design</li><li>Thermal Field for Applications Using Industrial Robots</li></ul>
8				Product Lifecycle Management
				Kinematics of Machine Tool
	Prof.univ.dr.eng. PUPĂZĂ Cristina Prof.univ.dr.eng. VELICU Ștefan	RSP RSP	IE IE	Advanced Computer Aided Engineering;
9				• Industry 4.0;
				Machine learning.
				Manufacturing Systems
10				Materials Processing
				• Industrial Logistics
	Prof.univ.dr.eng. ZAPCIU Miron	RSP	IE	Machine dynamics and vibrations
11				Process control in industry
				Robotics and Manufacturing Systems
	Prof.univ.dr.eng.ec. DOICIN Cristian	TCM		Product Development
12			ΙE	Manufacturing Processes and Systems
				Systems Engineering and Management
				• Engineering Economics
13	Prof.univ.dr.eng. DRĂGĂNESCU Florian	TCM	IE	Product Development
				Manufacturing Processes and Systems
				Machining and Machinability
14	Prof.univ.dr.eng. GHEORGHE Marian	TCM	ΙE	• Integrative Processes, Systems, Technology
				Product Development
				• Machinability, Machining, Control, Assembly

				Manufacturing, Production and Recycling
				Nonconventional Technologies and Specific
				Technological Systems
15	Prof.univ.dr.ing. GHICULESCU	TCM	ΙE	Micro and Nanotechnologies
10	Liviu Daniel	1 01/1		• Strategic and Quality Management, Innovation and
				Technological Transfer
				Nonconventional Machining Processes and Systems
1.0	Prof.univ.dr.eng. IONESCU	TOM	TE	Manufacturing Processes and Systems
16	Nicolae	TCM	ΙE	Product Development
				Creativity and Intellectual Property
	Prof.univ.dr.eng.ec. MILITARU			Quality Engineering and Management
17	Constantin	TCM	ΙE	• Product and Processes Quality
	1			• Quality Management Systems
				Production Programming and Control     Development
18	Prof.univ.dr.eng. NEAGU Corneliu	TCM	ΙE	• Product Development
				<ul><li>Systems Engineering and Management</li><li>Manufacturing Processes and Systems</li></ul>
				Engineering of Composites Products
	Prof.univ.dr.eng. OPRAN			• Engineering of Composites Froducts
19	Constantin Gheorghe	TCM	ΙE	• Intelligent manufacturing of advanced materials
	E			products
				Geometric Control Process and Devices
20	Prof.univ.dr.eng. STURZU Aurel	TCM	ΙE	Geometric Control Systems
				Manufacturing Processes and Systems
				Advanced Composite Systems
21	Prof.univ.dr.eng. SEVERIN Irina	ICTI	ΙE	Integrated Management Systems
				Quality Engineering & Management
	Duct univeds on a VOICHI ESCH			Materials Science and Processing
22	Prof.univ.dr.eng. VOICULESCU Ionelia	ICTI	ΙE	Welding Processes
	Tonena			Heat Treatments
	Prof.univ.dr.eng. CHIVU Oana			Occupational health and safety management
23	Roxana	ICTI	ΙE	Manufacturing processes and Systems
	Rozulu			Quality management
				• Additive manufacturing
24	Prof.univ.dr.eng. AMZA Cătălin	ICTI	ПС	• Industrial image processing
24	Gheorghe	ICTI	ΙE	<ul><li> Quality inspection of industrial products</li><li> Virtual and augmented reality for industrial</li></ul>
				applications
25	Prof. univ. dr. eng. NIȚOI Dan	ICTI	ΙE	• Ultrasonics. Applications in engineering and medicine
23	Tion and an eng. 141, of Ban	1011	112	Modelling and simulation
				Materials Technology. Smart materials
				Sustainable development and eco-technologies
	Prof.univ.dr.eng. RONTESCU			Welding Processes and Control
26	Corneliu	ICTI	ΙE	Materials and Products Reconditioning
				Topological structure of mechanisms and manipulators
27	Prof.univ.dr.eng. ANTONESCU	TMR	ΙE	Kinematics and dynamics of mechanisms and machines
	Păun			Serial and parallel industrial robots
	Prof.univ.dr.eng. SIMIONESCU			Optimum Design of Industrial Robots
28	Ion	TMR	ΙE	Mechanisms and Machineries Design
				Optimal Synthesis of Mechanisms
2.0				• Analysis and Synthesis of Mechanisms Applied in
29	Prof.univ.dr.eng. TEMPEA Iosif	TMR	ΙE	Industry
				Modeling and Simulation of Robotic Mechanisms     Industrial Design
30	Prof.univ.dr.eng. SIMION Ionel	GIDI	ΙE	<ul><li>Industrial Design</li><li>Computer Aided Design</li></ul>
50	1 101.umv.ur.eng. ShvirON loner	ומוט	ΙĖ	Computer Aided Design     Computer Graphics
			<u> </u>	Computer Orapines

31	Prof.univ.dr.eng. CĂNĂNĂU Sorin	OMT	IE	<ul> <li>Mechanical transmissions with gears</li> <li>Tribology</li> </ul>
32	Prof. univ. dr. eng. RECE Laurențiu	UTCB- TM	IE	<ul> <li>FEM analysis of mechanical structures</li> <li>Development of numerical control systems.</li> <li>Development of innovative products.</li> </ul>
33	Prof. univ. dr. eng. CÎRŢÎNĂ Liviu Marius	U. Tg. Jiu	IE	<ul> <li>Modern industrialization of innovative products.</li> <li>Product Development and Processes Quality</li> <li>Manufacturing Processes and Systems</li> <li>Quality Management</li> </ul>
34	Prof.univ.dr.eng. CONSTANTINESCU Dan Mihai	RM	ME	<ul> <li>Fracture mechanics and fatigue</li> <li>Interface damage and failure</li> <li>Mechanical behavior of composites/ nanocomposites, foams, and ceramics</li> </ul>
35	Prof.univ.dr.eng. JIGA Gheorghe Gabriel	RM	ME	<ul> <li>Layered composite structures;</li> <li>Experimental stress analysis;</li> <li>Sandwich structures;</li> <li>Impact on composite structures.</li> </ul>
36	Prof.univ.dr.eng. HADĂR Anton	RM	ME	<ul> <li>Stress and strain optimization for mechanical structures statically or dynamically loaded;</li> <li>Mechanical structures based on composite materials.</li> </ul>
37	Prof.univ.dr.eng. RADEŞ Mircea	RM	ME	<ul> <li>Machine dynamics</li> <li>Mechanical vibration</li> <li>FEM in dynamic analysis of mechanical structures</li> </ul>
38	Prof.univ.dr.eng. OLARU Adrian	RSP	ME	<ul> <li>Assisted research of the Robot's dynamics</li> <li>Modelling and simulation with LabVIEW</li> <li>Software platform for the assisted research of the Forward kinematics and Inverse dynamics of robots</li> <li>Controlling and automation manufacturing systems</li> <li>Neural Networks solving the Inverse kinematics in Robotics</li> <li>Humanoid robots</li> </ul>
39	Prof.univ.dr.eng. POPESCU Diana	RSP	ME	Assembly/disassembly process modeling     Additive Manufacturing     Industrial robots
40	Prof.univ.dr.eng.mat.ec. SEMENESCU Augustin	IE- SIM	EMg	<ul> <li>Industrial Processes, Equipment and Management;</li> <li>Modeling, Simulation and Innovation for Industrial Processes and Product Development;</li> <li>Innovative Medical Devices and Materials;</li> <li>Metallic Materials Producing and Processing;</li> </ul>
41	Prof.univ.dr.eng.ec. ŢÎŢU Aurel Mihail	IIM- ULBS	EMg	<ul> <li>Engineering and quality management;</li> <li>Intellectual property management, innovation and technology transfer;</li> <li>KAIZEN systems and LEAN systems;</li> <li>Experimental research and data processing;</li> <li>Engineering and management of nonconventional technologies.</li> </ul>
42	Prof.univ.dr.eng. IOANA Adrian	IE- SIM	EMg	<ul> <li>Quality management in the metal materials industry</li> <li>Strategic management specific to industrial engineering</li> <li>Optimal management of aggregates in the materials industry</li> <li>Automation and robotization in the materials industry</li> <li>Specific management of educational systems</li> </ul>
43	Prof.univ.dr.eng. CĂRUȚAȘU Nicoleta Luminița	RSP	EMg	<ul><li>Occupational Health and Safety Management;</li><li>Logistics;</li></ul>

44	Prof. univ. dr. eng. MARIN Alexandru	HMHIM - Energetics	EMg	<ul> <li>Renewable energy and environmental protection</li> <li>Fluid power and electro-hydraulic servo-systems</li> <li>Intellectual property rights protection &amp; management and capitalization of intangible assets</li> <li>Innovation and knowledge / technology transfer</li> </ul>
	Prof. univ. dr. eng. CĂRUȚAȘU George	U. Rom. American. Fac. Inform. for Bus. Management	EMg	<ul> <li>Enterprise Resource Planning</li> <li>Business Software Applications</li> <li>Virtualization and Cloud Computing Management</li> </ul>