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| University POLITEHNICA of 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

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| **No.** | **PhD Advisor** | **D** | **DF** | **Scientific Areas** |
| 1 | Prof.univ.dr.ing. BENDIC Vasile | RSP | IE | • Management and systems engineering  • Manufacturing processes and systems  • Product development |
| 2 | Prof.univ.dr.ing. CONSTANTIN George | RSP | IE | • Advanced manufacturing systems  • Manufacturing processes  • Advanced modeling, simulation and optimization techniques |
| 3 | Prof.univ.dr.ing. COTEȚ Costel Emil | RSP | IE | • Smart manufacturing  • Digital twining in industrial engineering  • Product Lifecycle Management |
| 4 | Prof.univ.dr.ing. DORIN Alexandru | RSP | IE | • Industrial Robot Modular Design  • Optimizing Devices for Driving Robots Systems |
| 5 | Prof.univ.dr.ing. GHIONEA Adrian | RSP | IE | • Machine Tool Performance and Precision  • Maintenance Management  • Industrial Logistics  • Manufacturing Systems |
| 6 | Prof.univ.dr.ing. MOHORA Cristina | RSP | IE | • Material Flow Modelling and Simulation;  • Vibration and Noise;  • Assistive Devices. |
| 7 | Prof. univ. dr. ing. NIȚOI Dan | RSP | II | • Ultrasonics. Applications in engineering and medicine  • Modelling and simulation  • Materials Technology. Smart materials  • Sustainable development and eco-technologies |
| 8 | Prof.univ.dr.ing. PREDINCEA Nicolae | RSP | IE | • Thermal Field for Applications Using Industrial Robots  • Product Lifecycle Management  • Kinematics of Machine Tool |
| 9 | Prof.univ.dr.ing. PUPĂZĂ Cristina | RSP | IE | • Advanced Computer Aided Engineering;  • Industry 4.0;  • Machine learning. |
| 10 | Prof.univ.dr.ing. VELICU Ștefan | RSP | IE | • Manufacturing Systems  • Materials Processing  • Industrial Logistics |
| 11 | Prof.univ.dr.ing. ZAPCIU Miron | RSP | IE | • Machine dynamics and vibrations  • Process control in industry  • Robotics and Manufacturing Systems |
| 12 | Prof.univ.dr.ing. DOICIN Cristian | TCM | IE | • Product Development  • Manufacturing Processes and Systems  • Systems Engineering and Management  • Engineering Economics |
| 13 | Prof.univ.dr.ing. DRĂGĂNESCU Florian | TCM | IE | • Product Development  • Manufacturing Processes and Systems  • Machining and Machinability |
| 14 | Prof.univ.dr.ing. GHEORGHE Marian | TCM | IE | • Integrative Processes, Systems, Technology  • Product Development  • Machinability, Machining, Control, Assembly  • Manufacturing, Production and Recycling |
| 15 | Prof.univ.dr.ing. GHICULESCU Liviu Daniel | TCM | IE | • Nonconventional Technologies and Specific Technological Systems  • Micro and Nanotechnologies  • Strategic and Quality Management, Innovation and Technological Transfer |
| 16 | Prof.univ.dr.ing. IONESCU Nicolae | TCM | IE | • Nonconventional Machining Processes and Systems  • Manufacturing Processes and Systems  • Product Development  • Creativity and Intellectual Property |
| 17 | Prof.univ.dr.ing. MILITARU Constantin | TCM | IE | • Quality Engineering and Management  • Product and Processes Quality  • Quality Management Systems |
| 18 | Prof.univ.dr.ing. NEAGU Corneliu | TCM | IE | • Production Programming and Control  • Product Development  • Systems Engineering and Management  • Manufacturing Processes and Systems |
| 19 | Prof.univ.dr.ing. OPRAN Constantin Gheorghe | TCM | IE | • Engineering of Composites Products  • Engineering of Polymeric Products  • Intelligent manufacturing of advanced materials products |
| 20 | Prof.univ.dr.ing. STURZU Aurel | TCM | IE | • Geometric Control Process and Devices  • Geometric Control Systems  • Manufacturing Processes and Systems |
| 21 | Prof.univ.dr.ing. VIŞAN Aurelian | TCM | IE | • Nonconventional Machining Processes and Systems  • Manufacturing Processes and Systems  • Product Development |
| 22 | Prof.univ.dr.ing. SOLOMON Gheorghe | ICTI | IE | • Welding Processes and Control  • Quality Management  • Occupational Health and Safety Management |
| 23 | Prof.univ.dr.ing. SEVERIN Irina | ICTI | IE | • Advanced Composite Systems  • Integrated Management Systems  • Quality Engineering & Management |
| 24 | Prof.univ.dr.ing. VOICULESCU Ionelia | ICTI | IE | • Materials Science and Processing  • Welding Processes  • Heat Treatments |
| 25 | Prof.univ.dr.ing. CHIVU Oana Roxana | ICTI | IE | • Occupational health and safety management  • Manufacturing processes and Systems  • Quality management |
| 26 | Prof.univ.dr.ing. AMZA Cătălin Gheorghe | ICTI | IE | • Additive manufacturing  • Industrial image processing  • Quality inspection of industrial products  • Virtual and augmented reality for industrial applications |
| 27 | Prof.univ.dr.ing. RONTESCU Corneliu | ICTI | IE | • Welding Processes and Control  • Materials and Products Reconditioning |
| 28 | Prof.univ.dr.ing. ANTONESCU Păun | TMR | IE | • Topological structure of mechanisms and manipulators  • Kinematics and dynamics of mechanisms and machines  • Serial and parallel industrial robots |
| 29 | Prof.univ.dr.ing. SIMIONESCU Ion | TMR | IE | • Optimum Design of Industrial Robots  • Mechanisms and Machineries Design  • Optimal Synthesis of Mechanisms |
| 30 | Prof.univ.dr.ing. TEMPEA Iosif | TMR | IE | • Analysis and Synthesis of Mechanisms Applied in Industry  • Modeling and Simulation of Robotic Mechanisms |
| 31 | Prof.univ.dr.ing. SIMION Ionel | GIDI | IE | • Industrial Design  • Computer Aided Design  • Computer Graphics |
| 32 | Prof.univ.dr.ing. CĂNĂNĂU Sorin | OMT | IE | • Mechanical transmissions with gears  • Tribology  • FEM analysis of mechanical structures |
| 33 | Prof. univ. dr. ing. RECE Laurențiu | UTCB-TM | IE | • Development of numerical control systems.  • Development of innovative products.  • Modern industrialization of innovative products. |
| 34 | Prof.univ.dr.ing. OLARU  Adrian | RSP | ME | • Assisted research of the Robot’s dynamics  • Modelling and simulation with LabVIEW  • Software platform for the assisted research of the Forward kinematics and Inverse dynamics of robots  • Controlling and automation manufacturing systems  • Neural Networks solving the Inverse kinematics in Robotics  • Humanoid robots |
| 35 | Prof.univ.dr.ing. POPESCU Diana | RSP | ME | • Assembly/disassembly process modeling  • Additive Manufacturing  • Industrial robots |
| 36 | Prof.univ.dr.ing. BLUMENFELD Maty | RM | ME | • Materials Strength  • Finite Elements Method |
| 37 | Prof.univ.dr.ing. CONSTANTINESCU  Dan Mihai | RM | ME | • Fracture mechanics and fatigue  • Interface damage and failure  • Mechanical behavior of composites/ nanocomposites, foams, and ceramics |
| 38 | Prof.univ.dr.ing. JIGA Gheorghe Gabriel | RM | ME | • Layered composite structures;  • Experimental stress analysis;  • Sandwich structures;  • Impact on composite structures. |
| 39 | Prof.univ.dr.ing. HADĂR Anton | RM | ME | • Stress and strain optimization for mechanical structures statically or dynamically loaded;  • Mechanical structures based on composite materials. |
| 40 | Prof.univ.dr.ing. RADEŞ Mircea | RM | ME | • Machine dynamics  • Mechanical vibration  • FEM in dynamic analysis of mechanical structures |
| 41 | Prof.univ.dr.ing. SEMENESCU Augustin | IE-SIM | EMg | • Industrial Processes, Equipment and Management;  • Modeling, Simulation and Innovation for Industrial Processes and Product Development;  • Innovative Medical Devices and Materials;  • Metallic Materials Producing and Processing; |
| 42 | Prof.univ.dr.ing. ȚÎȚU Aurel Mihail | IIM-ULBS | EMg | • Engineering and quality management;  • Intellectual property management, innovation and technology transfer;  • KAIZEN systems and LEAN systems;  • Experimental research and data processing;  • Engineering and management of nonconventional technologies. |
| 43 | Prof.univ.dr.ing. IOANA Adrian | IE-SIM | EMg | • Quality management in the metal materials industry  • Strategic management specific to industrial engineering  • Optimal management of aggregates in the materials industry  • Automation and robotization in the materials industry  • Specific management of educational systems |
| 44 | Prof.univ.dr.ing. CĂRUȚAȘU Nicoleta Luminița | RSP | EMg | • Occupational Health and Safety Management;  • Logistics; |
| 45 | Prof. univ. dr. ing. MARIN Alexandru | HMHIM - Energetică | EMg | • Renewable energy and environmental protection  • Fluid power and electro-hydraulic servo-systems  • Intellectual property rights protection & management and capitalization of intangible assets  • Innovation and knowledge / technology transfer |