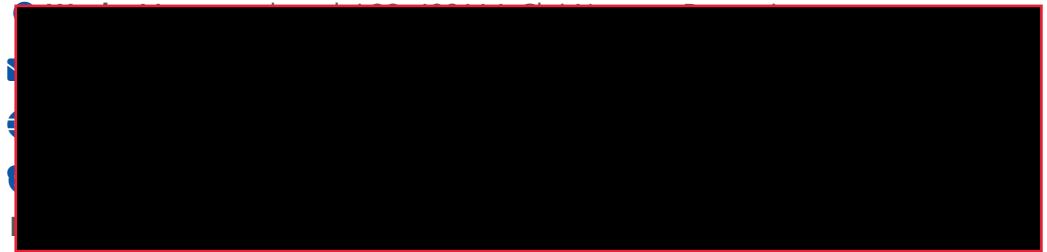




Bogdan Mocan



WORK EXPERIENCE

[2015 – Current]

Associate Professor

Technical University of Cluj Napoca, Str. Memorandum no. 28, 400114 www.utcluj.ro

City: Cluj-Napoca

Country: Romania

- Didactic and research activity;
- Courses: "Manufacturing Robotization I (year III)", "Manufacturing Robotization II (year IV)", "Machines manufacturing tools and equipment (year III)", "The reliability, maintenance and safety of robotic systems industrial (master)"; "Manufacturing equipment design (master)", "Qualitative and quantitative methods in decision-making (master)"

[2012 – 2015]

Senior Lecturer

Technical University of Cluj Napoca, Str. Memorandum no. 28, 400114 www.utcluj.ro

City: Cluj-Napoca

Country: Romania

- Didactic and research activity;
- Courses: "Manufacturing Robotization I (year III)", "Manufacturing Robotization II (year IV)", "Machine tools and manufacturing equipment (year III)", "Reliability, maintenance and safety of industrial robotic systems (master)" ; "Automation and Robotization of the Manufacture of Welded Structures (master)"

[2008 – 2012]

Assistant Professor

Technical University of Cluj Napoca, Str. Memorandum no. 28, 400114 www.utcluj.ro

City: Cluj-Napoca

Country: Romania

- Didactic and research activity
- Laboratory and project disciplines: "Competitive design", "Manufacturing robotization", "Machine tools".

[2003 – 2008]

Research Assistant

Technical University of Cluj Napoca, Str. Memorandum no. 28, 400114 www.utcluj.ro

City: Cluj-Napoca

Country: Romania

- Member of various research projects

EDUCATION AND TRAINING

[18/03/2022]

Habilitation Thesis

Technical University of Cluj-Napoca <https://iosud.utcluj.ro/teze-de-abilitare.html>

City: Cluj-Napoca

Country: Romania

[30/11/2022 – 04/12/2022]

Fanuc - Robotic Educational Cell Operation and Programming, iRVision2D and Roboguide Basic

FANUC Romania <https://www.fanuc.eu/ro/ro/>

City: Cluj-Napoca

Country: Romania

[11/07/2022 – 15/07/2022]

SolidWorks - Advanced Training Course

CAD Works International <https://cadworks.ro/>

City: Cluj-Napoca

Country: Romania

[30/07/2018 – 03/08/2018]

Certificate TR42115 - Process Simulate - Basic Robotic Simulation

ADA Computers SRL - The PLM Specialist - Siemens <https://www.adacomputers.ro/>

City: Cluj-Napoca

Country: Romania

Field(s) of study: Industrial Automation

Final grade: Certificate D18UTCJ002

PLM Software - Process Simulate - Basic Robotic Simulation

Certificate D18UTCJ002

[2014 – 2015]

Post-doctoral researcher

Technical University of Cluj Napoca www.utcluj.ro

Address: Memorandum no. 28, Street, 400114, Cluj-Napoca, Romania

Field(s) of study: Robotics

Final grade: Cum laude **Level in EQF:** EQF level 8

NQF Level: Postdoctoral university studies

Thesis: Intelligent human-robot interfaces for intuitive programming of industrial robots

[2013]

Certificate of Completion of the Training Program in Blended-Learning and Modern Educational Technologies for University Education

Technical University of Cluj-Napoca www.utcluj.ro

Address: Memorandum no. 28, Street, Cluj-Napoca, Romania

NQF Level: Nivelul 7 EQF

Atestat nr. 2018 din 22.11.2013

[2012]

Certificate - Simatic WinCC flexible system

Siemens Romania

City: Cluj-Napoca

Country: Romania

Field(s) of study: Industrial Automation

Presentation of the SIMATIC WinCC Flexible system
Creating a program
Configuring connections to SIMATIC S7
Human-machine interfaces
Archiving variables, configuring graphs
Management of man-machine interfaces

[2012] **Certificate - SIMATIC ST-7PRO1 Programare 2**

Siemens Romania

City: Cluj-Napoca

Country: Romania

Utilizarea instructiunilor pe bit, instructiunile pe registri si instructiunile aritmetice in virgula mobila

Utilizarea structurilor de date complexe

Structurarea programelor utilizator utilizand functii si functii bloc

Principiile fundamentale ale sistemului PROFIBUS-DP

[2012] **Certificate - SIMATIC ST-7PRO1 Programare 1**

Siemens Romania

City: Cluj-Napoca

Country: Romania

Field(s) of study: Industrial Automation

Structuring, generating, documenting and implementing SIMATIC S7 programs for PLCs

STEP 7 utility for generating, documenting and testing programs

Absolute and symbolic addressing

Data types

Practical exercises using the S7-300 PLC

[2012] **Certificate - Robot Operation and Programming (TPEB) Fanuc**

FANUC Robotics Magyarorszag Kft

Country: Hungary

- Safety instructions for operating Fanuc robots

- Operation and operation of the Teach Pendant

- Programming Fanuc robots using all movement instructions

- Calibration and mastering of Fanuc robots

- Operation in automatic mode

Certificate no. A2/02-06.05.2012

[2012] **Doctoral Degree (PhD) in Industrial Engineering**

Technical University of Cluj Napoca www.utcluj.ro

Address: Memorandum no. 28, Street, 400114, Cluj-Napoca, Romania

Level in EQF: EQF level 8

Topic: Research and contributions on the oriented design and performance improvement of robotic electric arc welding systems

[2011] **Certificate - Project manager**

SC RoMarketing SRL

City: Oradea

Country: Romania

Graduation certificate: series G no. 00394243

[2011] **Certificate - KUKA Basic Robot Programming**

Kuka, Taksony

City: Timisoara

Country: Romania

- Safety instructions for Kuka robots
- Robot system functionality
- Programming Kuka robots using all movement instructions
- Expert level introduction
- Operation in automatic mode

Certificate no. Q27981/04-07.03.2011

[2011] **Professional Competence Certificate - Trainer**

SC RoMarketing SRL

City: Oradea

Country: Romania

According to the occupational standard of professional training no. M10 for occupation / qualification: Trainer

Certificate Series B No. 015530

[2002 – 2003] **Eco-Management - PostGraduate Studies Diploma**

Technical University Cluj-Napoca & University of Minnesota, Hubert H.H Institute of Public Affairs

City: Cluj-Napoca

Country: Romania

Level in EQF: EQF level 7

NQF Level: Studii postuniversitare

- Specific environmental management tools, standards, environmental audit, environmental management systems

[2002 – 2003] **Engineering and Quality Management - PostGraduate Studies Diploma**

Technical University of Cluj Napoca

City: Cluj-Napoca

Country: Romania

Level in EQF: EQF level 7

NQF Level: Studii postuniversitare

- Engineering and Quality Management

[2003] **DPPD graduation certificate**

Technical University of Cluj-Napoca

City: Cluj-Napoca

Country: Romania

Psychopedagogical studies program

Series D certificate no. 0030099

[1997 – 2002] **Robotics Engineer - Bachelor's degree**

Technical University of Cluj Napoca

City: Cluj-Napoca

Country: Romania

Field(s) of study: Robotics

Level in EQF: EQF level 6

NQF Level: Bachelor degree

[1993 – 1997]

High school diploma (Bacalaureat)

"Avram Iancu" Theoretical High School

City: Brad

Country: Romania

Field(s) of study: Mathematics & Physics

Level in EQF: EQF level 4

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

RoboDK | SolidWorks | RobotStudio | Microsoft Office | AutoCAD | Microsoft Excel | Microsoft Word | Arduino | Microsoft Powerpoint | Google Drive | Teams | Simulink | Windows | C++ | MATLAB | CATIA | PLC

NETWORKS AND MEMBERSHIPS

Memberships

- Member of the Romanian Robotics Society, Cluj branch
- ETRIA, European TRIZ Association

DRIVING LICENCE

Cars: B

PROJECTS

Research Projects (selections)

1. The new robotic exoskeleton with integrated virtual reality system for cardiac rehabilitation, PN-III-P2-2.1-PED-2019-1057, no. 535PED/2020, total project value: 600,000 lei, UTCN value: 287,000 lei, [period: 01.11.2020-31.10.2022] – project director
2. Advanced proximity sensor prototype development, testing and optimization services, UMF Iuliu Hațegan Cluj 11181/15.05.2018, [period May 2018 – 31.07.2018] - project manager
3. Integrated Innovation Management System in SMEs, PCCA2013, no. contract 341/2014, Acronym InnDrive, [period July 2014 – June 2017] – WP module director “Application Data Structuring and Content”, [project financed by the Romanian Government through the PCCA 2013 program]
4. Non-invasive Intraoperative Detection of Small Endoluminal Digestive Tumors and their Margins using Magnetic Sensors of Proximity, Grant Agreement no. no. 11740/09.07.2014, [period June 2014 – December 2015] – project manager from UTCN, [financed by UMF Cluj-Napoca]
5. Smart Redesign of Clamp-Hook Tool to Achieve a Mass Reduction with 70%, CSi Industries B.V. Holland, Grant Agreement no. 2013/11.902, [2013-2014 period] – Project Director, [financed by SC CSi Industries, Netherlands]
6. Demonstrating the industrial validity and market feasibility of IT Tool to support SMEs in systematic innovation processes, FP7, Grant Agreement no. 311517, Acronym MARKET IT [period June 2012 – December 2013] – project member, [financed by the European Union through the FP7 program]

7. Structural Funds Project (FSE, POSDRU): International master's degree in robotics adaptable to the labor market (ROBOTIQ), project code: 28382, study program development manager, 2010-2012
8. IT Tool to support SMEs in systematic innovation, based on consolidated methodology and innovation knowledge domain structured through specific Ontologies, FP7 Call for Proposals: FP7-SME-2008-1, Grant Agreement no. 232410, Acronym TECH-IT-EASY [period June 2009 – June 2011] – project member, [financed by the European Union through the FP7 program]
9. Business Innovation Support Network Transylvania, Grant Agreement EEN-225559, Acronym BISNet Transylvania, within the Competitiveness and Innovation Program of the European Commission [period January 2009 – February 2019] – project member, [financed by the European Union through the EEN program]
10. Advanced tools for managing the complexity of the design / synthesis process of radically innovative products, Contact type A, Topic A3, Code 1285, Beneficiary CNCSIS, [period: 2006-2007] – project member, [project financed by the Government of Romania through the PN II program]
11. Increasing Quality Performance in the Framework of Cooperative Processes in SMEs through Expert Systems in Engineering and Innovation Management, acronym INOVEX, Contract CEEEX II no. 140/02.10.2006, ANCS, Code. 628, [period: 2006-2008] – member in the project, [project financed by the Government of Romania through the PN II program]

HONOURS AND AWARDS

International honours and awards

1. **Gold medal** on the 46 International Invention Show, Inova Croatia 2022 - Noninvasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – October 2022, Osijek, Croatia (<https://inovacroatia.com/en/inova-2021/>).
2. **Gold award** on the International Invention and Trade Expo London 2022- Noninvasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – 28-29 September, London, UK.
3. **Gold medal** at the 7 Annual Edition of the International Invention Competition in Canada, iCAN 2022- Non-invasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors -,27 August, Toronto, Canada 2022.
4. **Silver Medal** – International Warsaw Inventions Show “IWIS” 2021 – Laparoscopic Instrument for Precise Intraoperative Localization of Small Colorectal Tumors, 25-27 October, Warsaw, Poland, 2021.
5. **Bronze Medal** – EIS Infoinvent, Editia a XIV-a noiembrie 2015, Chişinău, Republica Moldova – 25-28 Noiembrie, Chişinău, 2015.

National honours and awards

1. **Diploma excelență și Medalie de Aur** în cadrul Salonului Internațional al Cercetării Științifice, Inovării și Inventicii PRO INVENT, ediția XX, 26-28 Octombrie 2022, Cluj-Napoca (<https://proinvent.utcluj.ro/>).
2. **Diploma excelență și Medalie de Aur** din partea Universității de Stat de Medicină și Farmacie „Nicolae Testemițanu” din Republica Moldova în cadrul Salonului Internațional de Inventii și Inovatii „Traian Vuia” Timișoara - Noninvasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – 8-10 Octombrie 2022, Timișoara.
3. **Premiu Special** la a VIII-a ediție a Salonului Internațional de Inventii și Inovatii „Traian Vuia” Timișoara, 8-10 Octombrie 2022, Timișoara.
4. **Gold Medal** la XXVI International Exhibition of Inventics, Inventica 2022 pentru - Non-invasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – 22-24 June 2022, Iași (<https://ini.tuiasi.ro/conference/>).
5. **Gold Medal** la Salonul Internațional de Inventii și Inovatii „Traian Vuia” Timișoara - Non-invasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – 8-10 Octombrie 2022, Timișoara.

6. **Diploma Gold Medal** de la Asociatia Iustin Capra pentru - Non-invasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – 24.06.2022
7. **Gold Medal** on the Euro Invent 14th Edition, European Exhibition of Creativity and Innovation, - Non-invasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors – 28 May 2022, Iasi (<https://www.euroinvent.org/program/>).
8. **Grand Prize** – din partea Romanian Inventors forum la Salonul International de Inventica PRO INVENT - Non-invasive intraoperative detection of small endoluminal digestive tumors and their margins using proximity sensors -, Ediția a XX-a, 26 - 28, octombrie 2022, Cluj-Napoca, 2022.
9. **Diploma of Gold Medal** Inventica 2018 - Arterial puncture device for arterial blood gas sampling from radial artery and method for using the device - , 27-29 June, Iași, Romania 2018.
10. **Diploma of Bronze Medal** EuroInvent 2018 - Arterial puncture device for arterial blood gas sampling from radial artery and method for using the device - , 17-19 May, Iași, Romania 2018.
11. **Diploma de Excelenta si Medalie de Aur** cu Mențiune Speciala la Salonul International de Inventica PRO INVENT - Arterial puncture device for arterial blood gas sampling from radial artery and method for using the device – 21-23 Martie, Cluj-Napoca, 2018;
12. **Diploma Gold Medal** (Medalie de Aur) - EUROINVENT European Exhibition of Creativity and Innovation – 16 Mai, Iași, 2015;
13. **Medalie de bronz** – EIS Infoinvent, Editia a XIV-a noiembrie 2015, Chișinău, Republica Moldova – 25-28 Noiembrie, Chișinău, 2015.

ORGANISATIONAL SKILLS

Organisational skills

- Leadership (leading multidisciplinary teams, setting goals, motivating staff/team members)
- Development, implementation and management of projects
- Organization of complex events
- Time management and budget administration
- Analytical thinking
- Outstanding planning skills
- Member of the implementation teams of some Phare, POSDRU, PNII, PNIII, FP 7, H2020 projects, director of contracts with third parties

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- Public speaking professional, didactic and scientific presentations
- Negotiation skills and conflict mediation in the university environment
- Communication within project teams, preparing, running and documenting work sessions
- Ability to provide effective feedback
- Mentoring
- Social adaptability
- The competences listed above were acquired in over 15 years of activity in the academic environment and collaboration with the private economic environment in various projects

JOB-RELATED SKILLS

Job-related skills

- Programming of ABB, Kuka, Fanuc, Motoman Yaskawa industrial robots
- Conception, planning, and design of robotic industrial applications (manipulation, assembly, electric arc welding, spot welding, palletizing).
- The use of systematic methods for the technical and economic design of robotic manufacturing cells (Factory Design Utilities; Inventor; Process Analysis by Autodesk).

- Realization of risk analysis for robotic cells and lines (ISO 12100, ISO 10218-1/2, ISO T/S 15066).
- Off-line programming of industrial robots using RoboDK, RobotStudio, FAnuc RoboGuide software.

REVIEWER

Conferences Reviewer

- ICPR AEM & QIEM 2014, 2016 și 2018

Journals Reviewer

- International Journal of Sustainable Engineering
- Acta Technica Napocensis Series: Applied Mathematics, Mechanics, and Engineering
- MDPI journals: Sustainability, Sensors, Nanomanufacturing, Algorithms, Robotics, Mathematics, Hearts, Machines, Applied Sciences, Electronics, IJERPH, AI, Drones.

PUBLICATIONS

Publications (selections) - Articles in ISI journals (Q1 or Q2)

1. Fulea M, **Mocan B.**, Dragomir M, Murar M. On Increasing Service Organizations' Agility: An Artifact-Based Framework to Elicit Improvement Initiatives. *Sustainability*. 2023; 15(13):10189. <https://doi.org/10.3390/su151310189> (IF: 2023 3.889, Q2).
2. **Mocan, B.**; Schonstein, C.; Murar, M.; Neamtu, C.; Fulea, M.; Mocan, M.; Dragan, S.; Feier, H. Upper-Limb Robotic Exoskeleton for Early Cardiac Rehabilitation Following an Open-Heart Surgery - Mathematical Modelling and Empirical Validation. *Mathematics* 2023, 11(7), 1598; <https://doi.org/10.3390/math11071598>. (IF: 2023 2,59, Q1).
3. **Mocan, B.**; Mocan, M.; Fulea, M.; Murar, M.; Feier, H. Home-Based Robotic Upper Limbs Cardiac Telerehabilitation System. *Int. J. Environ. Res. Public Health* 2022, 19, 11628. <https://doi.org/10.3390/ijerph191811628> (IF 2022 4,614 - Q1).
4. Calborean, A., Macavei, S., **Mocan, B.** et al. Non-invasive laparoscopic detection of small tumors of the digestive tract using inductive sensors of proximity. *Sci Rep* 12, issue 1, 760 (2022). <https://doi.org/10.1038/s41598-022-04822-x>, ISSN: 2045-2322; Nature-Scientific Reports, IF 2021 4.996, Q1; CiteScore: 5.134, Q1).
5. **Mocan, B.**; Schonstein, C.; Neamtu, C.; Murar, M.; Fulea, M.; Comes, R.; Mocan, M. CardioVR-ReTone—Robotic Exoskeleton for Upper Limb Rehabilitation following Open Heart Surgery: Design, Modelling, and Control. *Symmetry* 2022, 14, 81. <https://doi.org/10.3390/sym14010081>, ISSN: 2073-8994; (IF 2021 2,940, Q2; CiteScore: 3.4, Q1).
6. Mocan, M., Vlaicu, S.I., Farcaș, A.D., Feier, H., Dragan, S., and **Mocan, B.**, Cardiac Rehabilitation Early after Sternotomy Using New Assistive VR-Enhanced Robotic Exoskeleton—Study Protocol for a Randomised Controlled Trial, *Int. J. Environ. Res. Public Health* 2021, 18, no 22, 11922. <https://doi.org/10.3390/ijerph182211922>, 2021, EISSN 1660-4601 (IF 2021 3.390, Q1).
7. Bințișan, V., Calborean, A., Mocan, M., Macavei, S., Cordoș, A., Ciuce, C., Bințișan, A., Chira, R., Nagy, G., Surlin, V., Timofte, D., Nickel, F., Mueller, B., Dindelegan, G., Ciuce, C., Brad, S., Murar, M., **Mocan, B.**, New inductive proximity sensor platform for precise localization of small colorectal tumors, *Materials Science and Engineering: C -MATERIALS FOR BIOLOGICAL APPLICATIONS*, Volume 106, Article 110146, 2020, ISSN 0928-4931, (<https://doi.org/10.1016/j.msec.2019.110146>), (IF 2020 7.328, CiteScore 11.5, Q1).
8. Calborean, A., Macavei, S., Mocan, M., Ciuce, C., Cordos, A., Bintintan, A., Chira, R., Pestean, C., Pop, O., Barbu-Tudoran, L., Dindelegan, G., Surlin, V., Nickel, F., **Mocan, B.**, Bintintan, V., Laparoscopic compatible device incorporating inductive proximity sensors for precise detection of gastric and colorectal small tumors, *SurgicalOncology*, V. 35, pp. 504-514, (<https://doi.org/10.1016/j.suronc.2020.10.012>), December 2020, ISSN 0960-7404 (IF 2020 3.4, CiteScore 3.4, Q2).

Publications (selections) - Articles in ISI journals

1. **Mocan, B.**, Fulea, M., Murar, M., Chereches, I. A., Marian, S., Robotic Cell Customization Using Augmented Reality, *Acta Technica Napocensis, Series: Applied*

- Mathematics, Mechanics and Engineering, Vol 64, No 4s (2021), pp. 725-732, December 2021; ISSN: 1221-5872.
2. Fulea, M., Kis, M., Blagu, D., **Mocan, B.**, Artifact-Based Approach to Improve Internal Process Quality Using Interaction Design Principles, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics and Engineering, Vol 64, No 4s (2021), pp. 697-706, December 2021; ISSN: 1221-5872.
 3. **Mocan, B.**, Fulea, M., Mocan, M., Bintintan, V., A Robotic Helping Hand to the Detection of Small Colorectal Tumours in Laparoscopic Surgery, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics and Engineering, Vol 62, No 1 (March 2019), pp. 91-98, 2019.
 4. Mocan, M., **Mocan, B.**, Cardiac rehabilitation for older patients with cardiovascular pathology using robotic systems - A survey, Balneo Research Journal, ISSN: 2069-7597/eISSN: 2069-7619, Vol.10, No.1, February 2019, pp. 33-36, 2019 (DOI: 10.12680/balneo.2019.236)
 5. Mocan, M., Chiorescu, R., Banc, O.N., **Mocan, B.**, Anton, F., Stoia, M., Farcas, A.D., Cardiac rehabilitation protocols outcome in frail patients undergoing transcatheter aortic valve implantation, Balneo Research Journal, ISSN: 2069-7597/eISSN: 2069-7619, Vol.9, No.4, December 2018, pp. 401-405, 2018 (DOI: 10.12680/balneo.2018.220)
 6. Bartha, L., Fulea, M., **Mocan, B.**, Express-Car-Hire - A New Concept for Electric Vehicle Hiring Within Airport Terminals, Environmental Engineering and Management Journal, February 2018, Vol.17, No. 2, 273-283, ISI journal, (IF 1.186, Q4), 2018; eISSN: 1843-3707; WOS:000427084800004
 7. **B. Mocan**, V. V. Bintintan, S. Brad, C. Ciuce, M. Mocan, M. Murar, Development of a Robotic Driven Handheld Laparoscopic Instrument for Non-invasive Intraoperative Detection of Small Endoluminal Digestive Tumors, New Trends in Medical and Service Robots - Human Centered Analysis, Control and Design, Springer International Publishing, V. 39, pp 197-210, 2016.
 8. Brad, S., **Mocan, B.**, Brad, E., Fulea, M., Environmentally Sustainable Economic Growth, Amfiteatru Economic, 18(42), pp. 446-461, (IF 0,564), 2016
 9. **Mocan, B.**, Fulea, M., Olaru, M. and Buchmüller, M., From Intuitive Programming of Robotic Systems to Business Sustainability of Manufacturing SMEs. Amfiteatru Economic, 18(41), pp. 215-231, (IF 0,564), 2016.
 10. Fulea M., Tanaselea, C., **Mocan, B.**, Murar, M., Algorithm for Automatically Generating the Robot Program for a Reconfigurable Palletising Application, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics and Engineering, vol. 58, Issue IV, pp. 579-584, 2015.
 11. Olaru, M., Dinu V., Keppler, T., **Mocan, B.**, Mateiu, A., Study on The Open Innovation Practices In Romanian SMEs, Amfiteatru

BOOKS (SELECTIONS)

Books (selections)

1. Murar, M., **Mocan, B.**, s.a., Automate programabile logice și interfețe om-mașină, Editura UTPress, ISBN 978-606-737-246-5, 120 pg., Cluj-Napoca, 2023.
2. **Mocan, B.**, Brad, S., Fulea, M., Murar, M., Stan, A., Timoftei, S., *Multidisciplinary Design of Industrial Robotic Automation Solutions - Practical Guide For Students* - Editura UTPress, ISBN 978-606-737-246-5, 240 pg., Cluj-Napoca, 2018.
3. **Mocan, B.**, Timoftei, S., Stan, A., Fulea, M., RobotStudio® - Simulation of industrial automation processes and offline programming of ABBs robots - Practical guide for students - Editura UTPress, ISBN 978-606-737-254-0, 140 pg., Cluj-Napoca, 2017.
4. **Mocan, B.**, Brad, S., Fulea, M., *Automatizarea și Robotizarea Fabricației Structurilor Sudate*, Editura UTPress, ISBN 978-606-737-052-2, 290 pg., Cluj-Napoca, 2015.
5. Fulea, M., Brad, S., **Mocan, B.**, *Evaluarea excelenței organizaționale*, Editura UTPress, ISBN 978-606-737-065-2, 174 pg., Cluj-Napoca, 2015.
6. Brad, S., Brad, E., **Mocan, B.**, Fulea, M., *Tools and Methods of Competitive Design in Robotics*, Editura UT Press, ISBN 978-606-737-067-6, 183 pg., Cluj-Napoca, 2015.
7. Fulea, M., Brad, S., **Mocan, B.**, Murar, M., *Ingineria Dezvoltării Competitive a Produselor și Serviciilor Inovative*, Editura UT Press, ISBN 978-606-737-066-9, 52 pg., Cluj-Napoca, 2015.
8. Blebea, I., **Mocan, B.**, Steopan A., *Fiabilitatea, Mentenabilitatea și Siguranța Sistemelor de Producție*, Editura UT Press, ISBN 978-973-662-842-9, 292 pg., Cluj-Napoca, 2013.

9. **Mocan, B.**, *Sisteme Robotizate de Sudare cu Arc Electric – Proiectarea orientată și îmbunătățirea performanțelor sistemelor robotizate de sudare cu arc electric*, Editura UT Press, ISBN 978-973-662-881-8, 308 pg., Cluj-Napoca, 2013.
10. Brad, S., **Mocan, B.**; Duca, A., Brad, E., *Robotizarea Asistată de Calculator a Fabricației. Fundamentele Utilizării Mediului Workspace de Simulare și Programare Off-Line a Sistemelor de Fabricație Robotizate*, Editura UT Press, ISBN 978-973-662-361-5, 213 pg., Cluj-Napoca, 2008.
11. Brad, S., Ciupan, C., Pop, L., **Mocan, B.**, Fulea, M., *Manualul de Bază al Managerului de Produs în Ingineria și Managementul Inovației*, Ed. Economică, 700 pg., ISBN 973-709-265-1 / 978-973-709-265-6, București, 2006.
12. Brad, S., Brad, E., **Mocan, B.**, *Basic Tools of Competitive Design in Robotics – Student Guide for Practical Application*, Editura UT Pres, ISBN 973-662-161-8, 112 pg., Cluj-Napoca, 2005.

PATENTS

[29/04/2021]

1. Mocan B., Bintintan, V., Instrument Laparoscopic pentru Localizarea Extraluminală Precisă a Unei Tumori Colorectale, Nr. brevet: RO 131186 B1/29.04.2021.

[30/06/2023]

2. Mocan B., Mocan, M., Dispozitiv pentru Realizarea Puncției Arteriale în Vederea Prelevării Unei Probe de Sânge din Artera Radială, Nr. brevet: RO 133031 B1/30.06.2023.
