



First name(s) / **BERCE PETRU**

Surname(s)

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Nationality Romanian

Place and date of birth Rogoz de Beliu, jud. Arad, 6 februarie 1949

Gender Male

## Work experience

### Educational titles:

- Professor (1992 - present)
- Associate professor (1990 - 1992)
- Lecturer (1978 - 1990)
- Teaching assistant (1972 - 1978)

### Other titles obtained:

- PhD supervisor in the field of Industrial engineering (1997 - present)

### Managerial experience:

- Dean of the Faculty of Machine Building (2004 - 2012)
- Vice-rector – responsible with the research activities and international relations (1996 - 2004)
- Head of TCM Department (1996)
- Member of the National Scientific Research Consile Național from Romania (1998 - 2006)
- Member of the Industrial Engineering Comission CNATCU (2000 - present)

### Researcher with experience and international recognition in the field of Machine Building

- Competences in the field of Rapid Prototyping manufacturing technologies and there aplications and other different Innovative Rapid manufacturing technologies
- PhD supervisor from 1997 – with 22 PhD thesis finalized until prezent
- Member within CNATCU comissions

Elaboration of 14 scientific books, as main author or co-author and more than 150 scientific articles communicated and/or published, from which 28 where published in journals and proceedings that are ISI indexed, 6 patents

## International and national awards

### Awards

- Romanian academy prize, 1991;
- Excellence in Ministry of Education and Research prize, 2000;
- General association of engineers from Romania (AGIR) prize, 2000;
- 3 gold medal obtained at the International Salon of Patent from Geneve.

### International recognition

- Dr.H.C.of the Technical University of Kosice ;
- Honorary professor of Miskolc University and Keskemet University (Hungary);
- Member of DAAAM International Scientific Committee from Wien.
- Member of the International Scientific Committee - microCAD Conference, Miskolc, Hungary.

### National recognition

- Dr.H.C. of Dunarea de Jos University from Galati;
- Honorary professor of Transilvania University of Braşov and Polytechnical University of Timișoara;
- President of Manufacturing Engineering University Association;
- Editor of Academic Journal of Manufacturing Engineering journal.

### Grants gained by national competition:

1. BCUM National Centre of Rapid Prototyping (1998-2000) – 425.000 USD, Director.
2. Ultrasonic grinding broach –Invent program (2001- 2003) – 42.000 EUR, Director.
3. Innovative Manufacturing Network –CEEX grant type (2005-2007) – 420.000 EUR, Director..
4. Research integrated platform for innovative manufacturing preparation: Factory of the future (2005-2007), 1.500.000 EUR, Director.
5. New biocompatible materials for customized medical implants made by using SLS and SLM technologies (PCCE), (2010-2013), 2.000.000 EUR, Director.

### Grants gained by international competition:

1. National Pilot Centre for Continuing Education in Rapid Prototyping. TEMPUS, Program JEP 12490/1997, 253.000 EUR, Coordinator.
2. The Project for the Establishment of the Center for Innovative Manufacturing, financed by KOICA (Korea International Cooperation Agency), 325.000 USD, 2005, Director.
3. FP6 Program – Optical 3D Metrology – Automated in-line Metrology for Quality Assurance in the Manufacturing Industry, contract nr. 32721, 62.000 EUR, 2006-2008, Local coordinator
4. AMaTUC – Boosting the scientific excellence and innovation capacity in additive manufacturing of the Technical University of Cluj-Napoca, HORIZON 2020 – twinning, 2016-2018, Member

<b>Patents</b>	<ol style="list-style-type: none"> <li>1. Patent no. RO85321/15.03.1988 entitled “Device of vibro-rolling cylindrical external surfaces“</li> <li>2. Patent no. RO115609-B/ 25.05.2006 entitled “Ultrasonic grinding broach“</li> <li>3. Patent no. RO120391-B1 / 30.08.2006 entitled “ Ultrasonic grinding electrical broach “</li> <li>4. Patent no. RO120623-B1 / 30.10.2006 entitled “ Ultrasonic grinding electrical broach with magnetical bearings”</li> <li>5. Patent no. 201100104/07.02.2011 entitled Procedure and device for producing tubular bending parts with variable section from composite polymeric materials armed with different type of fibres</li> <li>6. Patent no. 201200540/18.07.2012 entitled Procedure and device for producing plates made from composite polymeric materials armed with different type of fibres</li> </ol>
<b>Scientific books (selection)</b>	<ol style="list-style-type: none"> <li>1. <b>Petru Berce</b>, et. al. Medical applications of Additive Manufacturing technologies, Romanian Academy Publishing House, Bucharest, 2015</li> <li>2. <b>Petru Berce</b>, et.al., Additive Manufacturing Technologies and their applications, Academy Publishing House, Bucharest, 2014.</li> <li>3. <b>Petru Berce</b>, Bâlc, N., Ancău, M., et.al, (2000), Rapid Prototyping Manufacturing Technologies , Technical Publishing House, Bucharest, ISBN 973-31-1503-7.</li> <li>4. Ivan, N.V., <b>Petru Berce</b>, Drăgoi, M.V., Oancea, G., Ivan, M.C., Bâlc, N., Lancea, C., et.al., (2004), CAD/CAPP/CAM systems – Theory and practice, Technical Publishing House, Bucharest, ISBN 973-31-1530-4</li> </ol>
<b>Scientific articles ISI (selection)</b>	<ol style="list-style-type: none"> <li>1. Customized implants with specific properties, made by selective laser melting By: Leordean, Dan; Dudescu, Cristian; Marcu, Teodora; Berce, Petru. RAPID PROTOTYPING JOURNAL Volume: 21 Issue: 1 Pages: 98-104 Published: 2015 (Red zone)</li> <li>2. Studies on design of customized orthopedic endoprotheses of titanium alloy manufactured by SLM. By: Leordean, Dan; Radu, S. A.; Fratila, D., Berce, P. INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY Volume: 79 Issue: 5-8 Pages: 905-920 Published: JUL 2015 (Yellow zone)</li> <li>3. Resarch on the durability of injection molding tools made by Selective Laser Sintering technology. By: Pacurar, Razvan; Berce, Petru. PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE Volume: 14 Issue: 3 Pages: 234-241 Published: JUL-SEP 2013 (Red zone)</li> <li>4. Surface structure changes on aluminosilicate microspheres at the interface with simulated body fluid. By: Todea, M.; Frentiu, B.; Turcu, R. F. V. Berce, P., Simon, S. CORROSION SCIENCE Volume: 54 Pages: 299-306 Published: JAN 2012 (Red zone)</li> </ol>