

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

E-mail berce@tcm.utcluj.ro

Nationality

Gender

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 applications 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 Geneva.

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

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| | <p>Patents</p> <ol style="list-style-type: none"> 1. Patent no. RO85321/15.03.1988 entitled "Device of vibro-rolling cylindrical external surfaces" 2. Patent no. RO115609-B/ 25.05.2006 entitled "Ultrasonic grinding broach" 3. Patent no. RO120391-B1 / 30.08.2006 entitled " Ultrasonic grinding electrical broach " 4. Patent no. RO120623-B1 / 30.10.2006 entitled " Ultrasonic grinding electrical broach with magnetical bearings" 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 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 |
| <p>Scientific books (selection)</p> | <ol style="list-style-type: none"> 1. Petru Berce, et. al. Medical applications of Additive Manufacturing technologies, Romanian Academy Publishing House, Bucharest, 2015 2. Petru Berce, et.al., Additive Manufacturing Technologies and their applications, Academy Publishing House, Bucharest, 2014. 3. Petru Berce, Bâlc, N., Ancău, M., et.al, (2000), Rapid Prototyping Manufacturing Technologies , Technical Publishing House, Bucharest, ISBN 973-31-1503-7. 4. Ivan, N.V., Petru Berce, 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 |
| <p>Scientific articles ISI (selection)</p> | <ol style="list-style-type: none"> 1. <i>Customized implants with specific properties, made by selective laser melting</i> By: Leordean, Dan; Dudescu, Cristian; Marcu, Teodora; Berce, Petru. RAPID PROTOTYPING JOURNAL Volume: 21 Issue: 1 Pages: 98-104 Published: 2015 (Red zone) 2. <i>Studies on design of customized orthopedic endoprotheses of titanium alloy manufactured by SLM</i> 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) 3. <i>Resarch on the durability of injection molding tools made by Selective Laser Sintering technology.</i> 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) 4. <i>Surface structure changes on aluminosilicate microspheres at the interface with simulated body fluid</i> 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) 5. <i>Comparative in vitro study regarding the biocompatibility of titanium-base composites infiltrated with hydroxyapatite or silicatitanate</i> By: Brie, Ioana-Carmen; Soritau, Olga; Dirzu, Noemi; Berce, P., et al. JOURNAL OF BIOLOGICAL ENGINEERING Volume: 8 Article Number: 14 Published: JUN 19 2014 (Yellow zone) |