

**MIHAI VALENTIN PREDOI**

Professor  
Department of Mechanics,  
University Politehnica Bucharest, ROMANIA



**Personal Details**

<b>Title</b>	Dr. / Ph.D.
<b>Family name</b>	PREDOI
<b>First name</b>	MIHAI VALENTIN
<b>Date of birth</b>	1959-05-08
<b>Country of birth</b>	Romania
<b>Nationality</b>	Romanian

**Contact Details**

<b>Employer</b>	University POLITEHNICA Bucharest
<b>Department</b>	Department of Mechanics
<b>Address</b>	Splaiul Independentei, 313, Bn012
<b>City</b>	Bucharest
<b>Country</b>	Romania
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<b>E-mail 2</b>	<a href="mailto:predoi@gmail.com">predoi@gmail.com</a>

**Linguistic Skills**

	Languages	Written	Reading	Conversation
<b>Language 1:</b>	English	Good	Good	Fluent
<b>Language 2:</b>	French	Good	Good	Fluent
<b>Language 3:</b>				

## Research Domains and Experience

1 . Ultrasonic guided waves

2 . Mechanical Vibrations

3 . Finite elements analysis

Director of Research Projects:

- 1) **Advanced ultrasonic monitoring system for the structural integrity of pipes.** Period 2011-2016, funding: Executive Agency for Higher Education, Research, Development and Innovation Funding – ROMANIA, (more than 250 k€ ), <https://sites.google.com/site/ultrasonicmonitoringpipes/home>
- 2) **Advanced researches in ultrasonic characterization of micro-defects in complex geometry structures,** 2007-2009, funding: Executive Agency for Higher Education, Research, Development and Innovation Funding – ROMANIA, (more than 50 k€). Director of UPB partnership.

## Keywords

### Freestyle keywords

Numerical simulation of ultrasound propagation, nondestructive ultrasonic technique, sound propagation simulation, Non-linear vibrations, plate vibrations, vibrations in aeronautical structures.

## Educational background

### Diplomas

- 1998: **Ph.D. in Mechanical Engineering** - University Politehnica Bucharest (Romania)
- 1998: **Docteur en Mécanique** - Université Pierre et Marie Curie - Paris 6 (France)
- 1984: **Engineer Diploma** - University Politehnica Bucharest (Romania)

## Experience

### Curriculum Vitae URL

<http://sites.google.com/site/predoi02/>

### Experience in Research, Peer Review, Evaluation/Validation, Impact Assessment

Reviewer to several scientific journals: Journal of Sound and Vibrations, Ultrasonics, IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, Journal of the Acoustical Society of America, Expert reviewer for national research projects - CNCSIS -Romania 2010- ...

### Main teaching activities

Mécanique - Faculté en Langues Etrangères – one semester (in French, at UPB)  
Mechanics – License level I-st and II-nd year – two semesters (in Romanian, at UPB)  
Interactions Noise – Vibrations – Master level – one semester (in Romanian, at UPB)  
Diagnosis and Monitoring of Machines and Structures – Master level – one semester (in Romanian, at UPB)  
Approximate methods, Finite Elements Method – Master level – one semester (in Romanian, at UPB)  
Noise and Vibration – Master level – one semester (in English, at UPB)

Employment History	
* Job Title	Professor
* Organisation Name	University Politehnica Bucharest
* Organisation Street Number and Name	313, Splaiul Independentei, BN002
* Organisation Town/City	Bucharest
* Organisation Country	Romania
Organisation Postal Code	060042
Organisation PO BOX	
*	Higher Education Establishments
* Organisation Size	2000+ employees
* Department/Organisation Name	Department of Mechanics
Employment Records for the last 10 years or the last 5 positions	
<p>1984-1986 Turbomecanica - turbojet and turbo-shaft engines factory</p> <p>1986-1989 Research Centre for Aeronautical Engines from the National Institute of Scientific Research in Aeronautics (CCMA-INCREST): today COMOTI (Romanian Research &amp; Development Institute for Gas Turbines);</p> <p>1989-1992 Assistant professor with University Politehnica Bucharest, Dept. of Mechanics,</p> <p>1992-1999 Lecturer with University Politehnica Bucharest, Dept. of Mechanics,</p> <p>1999-2004 Assoc. Professor with University Politehnica Bucharest, Dept. of Mechanics,</p> <p>2004 - ... University Professor with University Politehnica Bucharest, Dept. of Mechanics,</p>	

Interests
40. * Synopsis of current research interests
Ultrasonic guided waves - from mathematical models, computer simulation to laboratory experiments and industrial applications. Vibrations of mechanical structures: plates, rotors, etc. Fatigue life estimation of structures. Acoustic Emission: technical applications. New materials characterization by ultrasonic methods
41. Former research interests (with dates)
Numerical stress evaluation in aeronautical parts, 1986-1989. Noise measurements, 1999-2000.
42. Additional Information

- Internship grant at Laboratoire de Modélisation en Mécanique (LMM), University Paris 6, France, 2001-2002.
- Invited professor at LMP, University Bordeaux 1, Bordeaux, France, 02.2001, (06-07.2002), (07.2004), (05-06.2005), (09-12.2005), (05-06.2006), (09-12.2006)
- 2004 Invited professor at Le Havre University, Le Havre, France, and one-two weeks every year between 2007-2019, in some years as Erasmus program coordinator.
- Médaille étrangère de la Société Française d'Acoustique, 11.12.2008
- *Member of the following organizations:*
  - Acoustical Society of America (2005-...)
  - Romanian Acoustical Society (1996-...)
  - Associate Member of INCE-Europe, London (Initiative for Noise Control Engineering), 2001-...
  - Member of International Institute of Acoustics and Vibration, Auburn University, Alabama, USA, (2004-2008)
  - Member of ARTENS (Romanian Association for Tensometry), (2010-2017)
  - Institute of Electrical and Electronics Engineers (IEEE - USA) (2010- 2017)
- *Member in Scientific Committee of the following journals:*
  - Romanian Journal of Acoustics and Vibration (indexed Clarivate Analytics)
  - Scientific Bulletin of University Politehnica of Bucharest (series D Mechanical engineering)
- *Reviewer for national and international journals, mentioning here:*
  - Journal of the Acoustical Society of America;
  - Journal of Sound and Vibrations;
  - Ultrasonics;
  - IEEE Ultrasonics, Ferroelectrics, and Frequency Control;
  - NDT&E International.

### 43. Bibliography or Publications ref. and description

A complete and up to date list of publications can be seen at : [https://www.researchgate.net/profile/Mihai\\_Predoi](https://www.researchgate.net/profile/Mihai_Predoi)  
 Also in SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=6506689165>  
<https://orcid.org/0000-0001-8640-6842>

#### SCIENTIFIC TEXTBOOKS

C.C. Petre, M.V. Predoi, Unde ultrasonore în tuburi, Ed. Matrix Rom, ISBN- 978-606-25-0281-2, București, 140 pag., 2016.

M.V. Predoi, Vibrații Mecanice - Modele și aplicații în Matlab, Ed. Matrix Rom, ISBN-978-973-755-687-5, București, 2011.

R. Voinea, I. Stroe, M.V.Predoi, Technical Mechanics, Ed. Politehnica Press, ISBN-978-606-515-184-0, București, 2010.

M.V. Predoi, C.C. Petre, Controle par ultrasons des plaques soudees, Ed. Printech, ISBN-973-652-894-4, Bucureti, 2003.

C.C. Petre, M.V. Predoi, Controle par ultrasons des tubes soudés, Ed. Printech, ISBN-973-652-895-2, Bucureti, 2003.

M.V.Predoi, M. Bugaru, A. Motomanca, Introducere în modelarea dinamicii plăcilor plane, Ed. Bren, ISBN 973 - 9493-29-7, București, 132 pag., 1999.

M. Bugaru, M.V.Predoi, Vibrațiile plăcilor plane rectangulare subțiri excitate parametric. Ed. Bren, ISBN 973 - 9493-28-9, București, 143 pag., 1999.

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