

CURRICULUM VITAE

TRAIAN CICONE



EDUCATION

- 2017 Habilitation Dissertation in Mechanical Engineering and Mechatronics Thesis: "*Lubrication Processes in complex conditions: porous media, textured surfaces, thermo-elasticity effects*"
- 1997 Ph.D. in Tribology at University POLIYEHNICA of Bucharest (former Polytechnic Institute of Bucharest)
Thesis: "*Thermohydrodynamic Analysis of Fluid Film Mechanical Face Seals*"
- 1983 Engineer (5 years studie equivalent of M.Sc.) in Heat Engines at Faculty of Mechanical Engineering,
Polytechnic Institute of Bucharest.

OTHER EDUCATIONAL APPOINTMENTS

- Teaching development programme: "Conception de systèmes mécaniques assistés par ordinateurs". Ecole Normale Supérieure (ENS) de Cachan – France (may-june 2006)
- Post Doc position at University of Poitiers -France (Oct 1999-July 2000).
- Visiting scientist at University of Poitiers -France-(Oct.-Dec; 1997).
- PhD visiting student at University of Poitiers -France- (Oct.-Dec. 1994 and April - July 1996).
- Visiting scientist at Technion - Israel Inst. of Technology (summer 1992).
- Training courses and applications in standardisation for machine elements (march 1984).

EMPLOYMENT

- 2024 jan-feb Invited Professor at IUT Angouleme –France
- 2014 jan-feb Invited Professor at University of Poitiers –France
- 2012 may-june Invited Professor at University of Poitiers –France
- 1984-present Successively assistant, lecturer, associate professor and full professor at the Department of
Machine Elements and Tribology, University POLITEHNICA of Bucharest.
- 1984-1985 Research Engineer at National Institute for Thermal Engines;
- 1983-1984 Design Engineer at Injection Pumps Company in Sinaia, Romania;

TEACHING EXPERIENCE

- * Machine Design, (in Romanian and English)
- * Machine Elements and Mechanisms (in Romanian, English and French).
- * Tribology / Lubrication (in Romanian, English and French).
- * Numerical Methods in Engineering.
- * Finite Element Method with application in Mechanical Engineering.

RESEARCH ACTIVITIES

Main field of interest: Tribology / Lubrication *Experimental and theoretical approaches of thermo-elasto-poro-hydrodynamic phenomena in bearings (hydrodynamic and hydrostatic journal and thrust bearings), seals (face seals, brush seals), dampers or human joints.*

Other research subjects:

- * Experimental and theoretical studies of injection pumps characteristics.
- * Experimental studies in heat transfer of Diesel engines and Stirling engines.
- * Design of various power transmissions.
- * Applications on CAD in machine elements (gears, belts, couplings, bearings, etc.).
- * Experimental studies on vibrations in standard gear boxes.
- * Application of infrared radiative experimental techniques in mechanical contacts.

Director in 13 National Research Grants and participant in other 21 Research Grants or technical contracts.

Research Grant evaluator for National Academic Research Council (CNCSIS) and National Research Agency (ANC)

PUBLICATIONS

- Author and co-author of 3 books, 3 academic textbooks and 4 handbooks in Tribology and Machine Design (in Romanian and English).
- Co-author of *Lemaitre Handbook of Materials Behavior Models* - Academic Press, 2001.
- 35 publications in peer-review journals.
- +30 communications in national and international conferences or workshops.
- Associated Editor
 - M.D. Pascovici, A. Tudor, T. Cicone - *International Journal of Surface Science and Engineering* vol. 4, No. 2, 2010 *Selected papers from the 10th Int. Conference on Tribology - ROTRIB'07 București, România* <http://www.inderscienceonline.com/toc/ijsurfse/4/2>
 - M. Rîpă, R.G. Rîpeanu, T. Cicone - *IOP Conference Series: Materials Science and Engineering* Vol. 174, Iss. 1, March 2017- *13th Intern. Conf. on Tribology, ROTRIB 2016 22-24 sept. 2016 Galați, România* DOI:10.1088/1757-899X/174/1/011001 (SCOPUS)
 - T. Cicone - ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING – vol. 67 ISU Special 4, august 2024 - *15th Intern. Conf. on Tribology, ROTRIB'24 18-20 apr. 2024 București, România* (WOS).
- Member of the Technical Committee of the 5th Intern. Conf. on Friction, Lubrication and Wear, TRIBOTEHNICA '87, Bucuresti, (Oct. 1987), the 7th Intern. Conf. on Tribology. ROTRIB'96, Bucuresti, Romania, Sept. 1996, the 3rd Intern. Conf. on Tribology – “Balkantrib'99”, Sinaia, Romania, June, 2-4, 1999, *ROTRIB'07*, Bucharest, Nov. 8-10, *ROTRIB 2016 22-24 sept. 2016 Galați, ROTRIB'24 apr. 2024 București*.
- Member of the Scientific Committee of the International Conferences " EHD Traction and Lubrication" Suceava, Romania (VAREHD 14 2008), VAREHD 15 (2012) and the International Conference on Advanced Concepts in Mechanical Engineering (ACME) Iasi, ROMANIA (7th 2016 and 8th 2018 and 9th 2020, 10th 2022, 11th 2024).
- Chair of the 15th Intern. Conf. on Tribology *ROTRIB'24 apr. 2024 București*
- Co-chair of the Intern. Conf. on Tribology, ROTRIB 2016 - Galati 19-22 sept. 2016, ROTRIB 2019-Cluj 17-19 sept.
- Over 100 papers reviewed ASME-J. of Tribology, STLE Tribology Transactions, Tribology International (Elsevier), Lubrication Science, Proceed. IMechE Part J (J. of Engineering Tribology), Part C (J. of Mechanical Engineering Science), Part G: (J. of Aerospace Engng.), Part B: (J. of Engng. Manufacture), ASME Gas Turbine Conference, Mécanique et Industrie, Advances in Tribology (Hindawi), Int. J of Surface Engineering, Scientific Bulletin of UPB, Proc. of Romanian Academy – Seria A. Rev. Roumain des Sciences Techniques – Ser. Mecanique Appliquees, MDPI journals.

ACADEMIC ACTIVITIES

- * Vice-Dean of the Faculty of Engineering taught in Foreign Languages (2008-2012)
- * Elected Member of the Council of the Faculty of Mechanical Engineering 1990-1992 and Faculty of Engineering taught in Foreign Languages (2004-2016)
- * Member of the Senate of the University POLITEHNICA of Bucharest (2008-2012)
- * Associated member of the Romanian National Council for Attesting Titles, Diplomas and Certificates CNATDCU - Mechanical Engineering Committee (2010-2012)
- * Contact person for Bilateral Agreements within SOCRATES Programme UPB with 15 Universities from France, Spain, Denmark and Turkey.
- * President of the Romanian Association of Tribology
- * Member in Juries for PhD thesis in Romania (7 theses) and France (10 thesis) and in Habilitation Jury (HDR) in Romania (1) and in France (3).

LANGUAGES:

- * English and French .

PAPERS and COMMUNICATIONS

selected list

HIRSH Factor: WOS-6, Scopus: 7 Google Scholar: 9

- [1] Marinescu, A., Cicone, T., and Fatu, A., (2024) *The evaluation of two analytical solutions for a compliant single-recess hydrostatic thrust bearing*, Tribology International, 196, pp. 109672 **(IF 6.2)**
- [2] A. Marinescu, T. Cicone, A. Fatu (2023) *The study of a novel hydrostatic thrust bearing with a structurally elastic component: Theory and experiments*, Tribology International 189 108954 **(IF 6.2)**
- [3] Turtoi P., Pascovici M.D., Cicone T., 2019, Squeeze flow of Bingham fluids through reticulated, compressed foams, Lubricants 2019, 7(10), 86; DOI: 10.3390/lubricants7100086 **(IF 3.6)**
- [4] T. Cicone, M.D. Pascovici, C. Melciu, P. Turtoi (2019) *Optimal porosity for impact squeeze of soft layers imbibed with liquids*, Tribology International 138 140–149 **(IF 3.517)**
- [5] P. Turtoi, T. Cicone, A. Fatu (2017); Experimental and theoretical analysis of (water) permeability variation of nonwoven textiles subjected to compression; Mechanics & Industry. Vol. 18, No 3, Art no. 307 DOI: 10.1051/meca/2016048 **(IF 0.599)**
- [6] Melciu C., Cicone T., Pascovici MD (2017) *Saturated porous layers squeezed between parallel disks in enclosed cells*- IOP Conference Series-Materials Science and Engineering, Vol 174/2017
- [7] M.Radu, B. Bou-Said, T. Cicone, (2015), Experimental determination of viscoelastic properties of a highly compressible porous material imbibed with water. Mechanics & Industry. Vol. 16 (2015), No 6, 606 **(IF 0.599)**
- [8] M.Radu, T.Cicone - Experimental determination of the damping capacity of highly compressible porous materials imbibed with water, Journal of Balkan Tribological Association, vol. 22 (2016), no. 1, pp. 390-400 ISSN 1310-4772. **(IF 0.443)**
- [9] M.B. Ilie, T.Cicone, *The accuracy of analytical models for squeeze of rigid spheres on highly compressible porous layers imbibed with liquid*. Journal of Balkan Tribological Association, vol. 18 (2012), no. 1, ISSN 1310-4772. **(IF 0.443)**
- [10] M.D. Pascovici, A. Predescu, T. Cicone, C.S. Popescu, (2011), Experimental evidence of cavitation effects in a Rayleigh step slider, Proceed.of the IMechE, Part J: J. of Engineering Tribology vol. 225, Iss. 6 (June 2011) pp 225: 527 doi: 10.1177/1350650111403996 **(IF 0.916- Citations:15)**
- [11] Predescu, A. Pascovici, M.D., Cicone T., et al., 2010, *Friction evaluation of lubricated laser-textured surfaces*, Lubrication Science Vol. 22, No. 10, pp. 431-442 **(IF 1.031 - Citations:11)**.
- [12] M.B. Dobrică, M. Fillon, M.D. Pascovici, T. Cicone 2010 *Optimizing surface texture for hydrodynamic lubricated contacts using a mass-conserving numerical approach* , Proc. I.Mech.E. Part J: J. of Engineering Tribology Vol. 224, No. 8, pp. 737-750 ISSN 1350-6501 **(IF 0.916- Citations: +100)**
- [13] M.D. Pascovici, T. Cicone, M. Fillon, M.B. Dobrică (2009) - *Analytical investigation of a partially textured parallel slider* - Proc. I.Mech.E. Part J: J. of Engineering Tribology Vol. 223, No. 2 pp. 151-158 **(IF 0.916 Citations: +80)**.
- [14] M.D. Pascovici, T. Cicone, V. Marian (2009) *Squeeze process under impact, in highly compressible porous layers, imbibed with liquids*, Tribology International 42 1433–1438 **(IF 1.936)**
- [15] T.Cicone, A. Minculescu, M.D. Pascovici (2008) - *A Simplified Thermo-Elasto-Hydrodynamic Model for a Parallel Surface Slider* Tribology International 41 Issues 9-10 (Sept.-Oct), Pages 947-953 (ISSN: 0301-679X) – **(IF 1.936)**
- [16] V. Marian, M.D. Pascovici, T. Cicone (2006) *Modelarea analitică și numerică a lubrificației unei celule de textură cu degajări pătrate* –Buletinul Universității “POLITEHNICA” din Bucuresti seria D (U.P.B. Sci. Bull., Series), Vol. 68, 3, p.15-26
- [17] T. Cicone, A. Apostolescu - *Temperature Distribution in the Rings of Liquid Face Seals - Evaluation of Simplified Analytical Models using 3D FEM Analysis* - J. of the Balkan Tribological Assoc. Vol. 11 (2005), No.1, pp 37-44 **(IF 0.443)**.
- [18] Fatu, B. Tournerie, T. Cicone (2005) *Etude parametrique des joints d’etancheite a faces radiales au cours de demarrage, en utilisant un modele TEHD 1-D* – Mecanique et l’Industrie., 6, 6, 615-623,-DOI 10.1051-meca:2005052 **(IF 0.599)**
- [19] M.D. Pascovici, Ch. Russu, T. Cicone, (2004) *Squeeze Film Of Conformal, Layered, Compliant And Porous Contacts* - ACTA TECHNICA NAPOCENSIS. Series: Applied Mathematics and Mechanics, 47, vol.II, p.425-430..
- [20] M.D. Pascovici, T. Cicone (2003) *A correlation between velocity and temperature profiles across the film, for non-isoviscous Couette flow*, Analele Universității “DUNAREA DE JOS” din Galați, Fascicle VIII, TRIBOLOGY, no. 1/2003, pp. 33-38
- [21] M.D. Pascovici, T. Cicone (2003) *Squeeze-film of unconformal, compliant and layered contacts*. Tribology International 36, pp. 791-799. (ISSN: 0301-679X)– **(IF 1.936 Citations: 34)**.
- [22] T. Cicone, M.D. Pascovici, B. Tournerie (2001) *Nonisothermal Performance Characteristics of Fluid Film Mechanical Face Seals*. Proc. I.Mech.E. -J. of Engineering Tribology Vol 215 Part J, pp. 35-44. (ISSN: 1350-6501) – **(IF 0.916)**
- [23] M.D. Pascovici, T. Cicone (2000) *A Simplified Elasto-Thermo-Tribological Model of Brush Seals*. J. of the Balkan Tribological Assoc. Vol. 6, No.1, pp 37-44 (ISSN 1310-4772) **(IF 0.443)**..
- [24] Brunetière, N., Tournerie, B., Frêne J., Cicone, T. (2000) *Lubrication Regime Transitions During Start-up in Liquid Face-Seals*- J. of the Balkan Tribological Assoc. Vol. 6, No.1, pp 53-60 (ISSN 1310-4772) **(IF 0.443)**.
- [25] M.D. Pascovici, C.I. Șerpe, T. Cicone (1994), *Maximum Contact Pressure Distribution for Unlubricated Plastic Journal Bearings*. Rev. Roum. Sci. Techn. - Mec. Appl. Tome 39,2, p. 219-227, București, ROMÂNIA