### **Athanasios Chasalevris, PhD**

#### $oldsymbol{1}$ . Personal Information

Nationality/Passport: Hellenic/Hellenic

Date/Place of birth: 16<sup>th</sup> February 1982/Amarousio Attica, Hellas

Languages: Hellenic, English, German

Marital Status: Married (2017), (1) daughter, (1) son

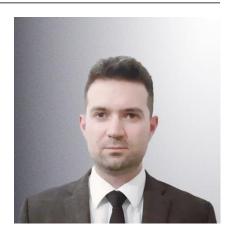
Employer: NTUA – National Technical University of Athens

Address (work): 9 Heroon Polytechniou Str., 15780 Zografou-Attica, Hellas

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http://users.ntua.gr/chasalevris



# 2. Professional Experience

Address (living):

### a. Academic Appointments

• (Sep. 2018 – today) NTUA – National Technical University of Athens (Athens 15780, Hellas)

1 Sarantaporou Str., 15561 Cholargos-Attica, Hellas

Position: Assistant Professor

Faculty: School of Mechanical Engineering - Dept. of Mechanical Design & Automatic Control

• (Sep. 2012 – Aug. 2013) TUD - Technische Universität Darmstadt (Darmstadt 64287, Germany)

Position: Research Associate

Faculty: Institute for Dynamics of Structures, Faculty of Mechanical Engineering

• (May 2010 - Aug. 2012) TUD - Technische Universität Darmstadt (Darmstadt 64287, Germany)

Position: Alexander von Humboldt postdoctoral researcher

Faculty: Institute for Dynamics of Structures, Faculty of Mechanical Engineering

# b. Appointments in Industry

• (July. 2017 - Sep. 2018) General Electric Co. / GE Oil & Gas1 (Rugby CV212NH, United Kingdom)

Position: <u>Team Leader Rotordynamics</u>, <u>Senior Engineer & Product Owner<sup>2</sup> (bearings)</u>

Business: Industrial Power Solutions / Turbine Power Systems

Objective: R&D and Execution Engineering of Industrial Steam Turbines

• (Nov. 2015 – Jun. 2017) General Electric Co. / GE Oil & Gas¹ (Rugby CV212NH, United Kingdom)

Position: Senior Rotodynamic Engineer & Product Owner<sup>2</sup> (bearings)

Business: Industrial Power Solutions / Turbine Power Systems

Objective: R&D and Execution Engineering of Industrial Steam Turbines

• (Feb. 2015 – Oct. 2015) ALSTOM / ALSTOM Power¹ (Rugby CV212NH, United Kingdom)

Position: Rotodynamic & Mechanical Integrity Engineer

Business: Industrial Power Generation/ Steam

Objective: R&D and Execution Engineering of Industrial Steam Turbines

• (Sep. 2013 – Jan. 2015) BorgWarner Inc. / BorgWarner Turbosystems Engineering GmbH

Position: Rotodynamic Engineer (Ingenieur Rotordynamik) (Kirchheimbolanden, Germany)

Business: Core Science-Bearings-Preventive Acoustics & Dynamics

Objective: R&D Engineering of Turbosystem Dynamics for Diesel/Otto engines of passenger cars,

lorries, and marine diesel engines

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<sup>&</sup>lt;sup>1</sup> The acquisition of ALSTOM Power from GE was finalized in November 2015

<sup>&</sup>lt;sup>2</sup> The responsibility of Product Owner for bearings was assigned in November 2016

#### 3. Education

• (July 2004–July 2009) Ph.D. - University of Patras

Machine Design Laboratory, Dept. of Mechanical Engineering and Aeronautics / **Section of Design** and **Manufacturing**, School of Engineering, Patras 26504, Hellas

*Ph.D. Thesis*: Vibration analysis of nonlinear-dynamic rotor-bearing systems and defect detection, University of Patras Press, 2009, (In English). Supervisor: Prof. Chris Papadopoulos<sup>†</sup>

• (Sep. 1999–July 2004) **Dipl. Mechanical & Aeronautical Engineer (M.Eng.)** - **University of Patras** (7.47/10, graduated 6<sup>th</sup> of 160)

Machine Design Laboratory, Dept. of Mechanical Engineering and Aeronautics / **Division of Design** and Manufacturing, School of Engineering, Patras 26504, Hellas

*Dipl. Thesis*: Cross–Coupled vertical and horizontal bending vibrations of a cracked rotor with two cracks (In Greek). Supervisor: Prof. Chris Papadopoulos<sup>†</sup>

• (Sep. 1996–June 1999) Lyceum Certificate (17.8/20) - 4<sup>th</sup> General Lyceum of Ioannina, Ioannina 45332, Hellas

# 4. Research Interests

- Machine Dynamics: linear & nonlinear dynamics of rotating machines
- **Tribology Fluid Mechanics**: analytical and numerical solutions on hydrodynamic lubrication
- **Nonlinear Dynamics**: continuation methods in the dynamic design of nonlinear rotor systems
- Time periodic systems Parametric excitation: development of adjustable/controllable journal bearings of variable geometry
- **Fracture Mechanics**: simulation of defects in rotating systems (rotor crack & bearing wear) & methods for NDT

#### 5. Collaborations<sup>3</sup>

- (2021) **KIT-Karlsruhe Institute of Technology** (**DE**): Nonlinear Dynamics of Rotors on Adjustable Bearings
- (2020) SUT-Sharif University of Technology (IR): Dynamics of bent rotors on nonlinear bearings
- (2021) UMIT-Private University for Health Sciences, Informatics and Technology (AT): Parametric excitation of rotors
- (2021) **RPI-Rensselaer Polytechnic Institute (US)**: Application of Operational Modal Analysis (OMA) in rotating machines
- (2020) BorgWarner Turbosystems (DE)/Noise and Vibration Harshness div.: Model Order Reduction (MOR) Techniques in rotors
- (2021) MTU Aero engines (DE)/Jet Engine Dynamics div.: Squeeze film damper models in jet engines (co-supervision of MSc Thesis)

# $\boldsymbol{6}$ . Teaching Work

• (Sep. 2018 – today) Machine Elements I (3<sup>rd</sup> semester-mandatory for all students) at the School of Mechanical Engineering, NTUA (**co- teaching 2/3**)

• (Feb. 2019 – today) Kinematics and Dynamics of Mechanisms (4<sup>th</sup> semester-mandatory for all students) at the School of Mechanical Engineering, NTUA (**full time teaching**)

• (Sep. 2020 – today) Dynamics and Vibrations (5<sup>th</sup> semester-mandatory for all students) at the School of Mechanical Engineering, NTUA (**co-teaching 1/2**)

• (Sep. 2020 – today) Dynamics of Rotating Machines (7<sup>th</sup> semester-elective<sup>4</sup>) at the School of Mechanical Engineering, NTUA (**full time teaching**)

• (Sep. 2012 – Jul. 2013) Teaching assistant in tutorials on rigid body dynamics (Dynamik starrer Körper) (4<sup>th</sup> semester) and on structural mechanics (Strukturmechanik)(6<sup>th</sup> semester of studies), at the Institute for Dynamics of Structures, Faculty of Mechanical Engineering, TU Darmstadt

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<sup>&</sup>lt;sup>3</sup> Only the collaborations with KIT and MTU are established with contract. The collaboration with KIT includes funding

<sup>&</sup>lt;sup>4</sup> **9** students at the 1<sup>st</sup> year of teaching; **32** students at the 2<sup>nd</sup> year of teaching

- (Sep. 2004 Jun. 2007) Teaching assistant in undergraduate courses in Machine Design (Critical speeds of Rotors, Balancing, Fatigue Failure) (5<sup>th</sup> and 6th semester), at the Machine Design Laboratory, Dept. of Mechanical Engineering and Aeronautics, University of Patras
- (Sep. 2004 Jun. 2007) Teaching assistant in undergraduate courses in Computational methods in Engineering Design using Computer (CAD) (10<sup>th</sup> semester), at the Machine Design Laboratory, Dept. of Mechanical Engineering and Aeronautics, University of Patras

# 7. Supervision<sup>5</sup>

# Duration | Name | Affiliation | Objective or title when applicable

- PhD Theses
- 1) 21/10/2019 12/01/2021 | **Lysandros Anastasopoulos** | NTUA School of Mech. Eng. | Runup simulation and real-time control of nonlinear rotor-bearing systems. (**Permanently interrupted**)
- MSc Theses
- 6) 09/2021 today | **Georgios Mitsos** | NTUA School of Mech. Eng. and MTU Aero Engines (**cosupervision**) | Influence of Speed and Eccentricity Dependent Bearing Stiffness and Damping on Rotor Vibrations in Jet Engines
- 5) 03/2021 today | **Alexis Chatzistavris** | NTUA School of Mech. Eng. | Nonlinear Dynamics of Automotive Turbochargers with Wire Mesh Dampers
- 4) 03/2021 today | **Ioannis Gavalas** | NTUA School of Mech. Eng. | Nonlinear Dynamics of Turbine Generator Shaft Trains Evaluation of Bifurcation Sets Applying Numerical Continuation
- 3) 03/2021 today | **Emmanouil Dimou** | NTUA School of Mech. Eng. | Parametric Excitation and Antiresonance in Rotating Systems with Gas Bearings
- 2) 03/2021 today | **Panagiotis Papafragkos** | NTUA School of Mech. Eng. | Optimization of Gas Bearing Properties to avoid Bifurcations of Limit Cycles in Rotor Systems An Energy Approach Applying Numerical Continuation
- 1) 03/2020-03/2021 | **Ioannis Raptopoulos** | NTUA School of Mech. Eng. | Stability, Bifurcations, and Energy Flow in Dynamic Systems of Elastic Rotors on Gas Foil Bearings
- Internships
- 2) 05/05/2021 27/07/2021 | **Baptiste Simon** | Université de Toulon (F) | Evaluation of Dynamic Properties of Foil Structures and Implementation in Gas Foil Bearing Dynamics.
- 1) 27/04/2019 27/07/2019 | **Jean Charles Louis** | Université de Toulon (F) | Application of Bearing Database Method on the Rotor Dynamic Design of Turbosystems

# 8. Projects for Research and Development, and bearing product qualification<sup>6</sup>

- 1) As Assistant Professor in NTUA
- a) Source: Alexander von Humboldt Foundation (Germany) | Fund: 55k€ total 47k€ for NTUA | Title: Nonlinear Dynamics
  of Rotor Systems on Adjustable Bearings | Description: Research Group Linkage Program with Karlsruhe Institute of
  Technology (KIT)
- 2) As Senior Engineer Rotordynamics and Product Owner at GE Oil & Gas and ALSTOM Power<sup>1</sup> participated in the following projects concerning rotordynamic assessment for a) R&D engineering in industrial turbines, b) Execution engineering in project specific turbines. The projects for basic research on the development of industrial turbomachinery may be found in (c). As product owner, participated on the projects (d) for the qualification of bearing products.

# a) R&D Engineering Projects

• (Oct. 2015 - Dec. 2015)	Geothermal Steam Turbine GST55N 30MW
• (Dec. 2015 - Dec. 2016)	Geared Reaction Turbine GRT25E18 30MW (Condensing & HP Extraction versions)
• (Jan. 2016 – Dec. 2016)	Geared Reaction Turbine GRT35E22 60MW (Condensing & IP Extraction versions)
• (Jan. 2016 - Aug. 2016)	Geared Reaction Turbine GRT55E35 100MW (Condensing & Extraction Versions)

<sup>&</sup>lt;sup>5</sup> Since the appointment in NTUA (23 September 2018)

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 $<sup>^{\</sup>rm 6}$  During the employment in General Electric Co.

• (May. 2017 - Sep. 2018)	Geared Reaction Turbine GRT65F44 135MW (Condensing & Extraction Versions)
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# b) Execution Engineering Projects

• (Mar. 2018 – Sep. 2018)	Oyka (Turkey) – Rotordynamic Assessment of <b>35MW</b> Steam Turbine-Gen
• (Apr. 2018 - Sep. 2018)	Yinchun, Wuhan, Kangbao (China) – Rotordynamic Assessment of 3X <b>45MW</b> ST-Gen
• (Dec. 2016 - Feb. 2017)	Damhead Creek (England) – Rotordynamic Assessment of <b>490MW</b> Steam Turbine-Gen
• (Oct. 2017 - Sep. 2018)	Gardabani (Georgia) – Rotordynamic Assessment of <b>83MW</b> Steam Turbine-Gen
• (Jan. 2016 - Sep. 2018)	Takhiatash (Uzbekistan) – Rotordynamic Assessment of <b>95MW</b> Steam Turbine -Gen
• (Mar. 2017 - Sep. 2018)	Iernut (Romania) – Rotordynamic Assessment of <b>85MW</b> Steam Turbine-Gen
• (Feb. 2015 - Sep. 2015)	ThermaVisayas (Philippines) - Rotordynamic Assessment of <b>169MW</b> Steam TurbGen
• (Jun. 2015 – Oct. 2015)	BP Grangemouth (Scotland) – Rotordynamic Assessment for high-speed balancing
• (Oct. 2015 – Feb. 2016)	Karaha (Indonesia) - Rotordynamic Assessment of <b>33MW</b> Steam Turbine-Gen
• (Mar. 2016 - Sep. 2016)	Dunhuang (China) – Rotordynamic Assessment of <b>100MW</b> Steam Turbine-Gen
• (Aug. 2016 - Nov. 2016)	Yerevan (Armenia) - Rotordynamic Assessment of <b>76MW</b> Steam Turbine-Gen

# c) Basic Research Projects on the dynamics of turbomachinery

• (Jan. 2018 - Sep. 2018)	Nonlinear Stability assessment of large steam turbine Generator Shaft Trains. Identification
	of super-critical and sub-critical bifurcations and periodic solution stability.
• (Jun. 2015 - Sep. 2018)	Development of innovative journal bearings of variable geometry for real time alignment
	and optimization of operation of turbine-generator shaft trains
• (Aug. 2015 - Sep. 2018)	Introducing parametric excitation and modal interaction in turbine-generator shaft trains
	for the suppression/elimination of resonance amplitude and extension of instability margins
	in higher speeds

# d) Projects in product ownership (bearings)

• (July. 2018 - Sep. 2018)	Product qualification of Steam Turbine bearings from <b>Osborne Engineering Limited-OEL</b> (Newcastle (UK)), with onsite inspection of manufacturing, babbitting, adhesion, and testing methodologies
• (June. 2018 - Sep. 2018) • (Nov. 2016 - Sep. 2018)	Product qualification of Steam Turbine bearings from <b>GTW</b> (Brno (CZ))  Product qualification of turbine bearings from <b>White Metal Industria e Comércio Ltda</b> (Sao Paolo (BR)), with onsite inspection of manufacturing, babbitting, adhesion, and testing methodologies
• (Nov. 2016 - Sep. 2018)	Product qualification of turbine bearings from <b>Lufkin RMT</b> (Lufkin Industries, LLC) (Florence (I), and Wellsville NY (US))

3) As **Rotordynamic Engineer** at **BorgWarner Inc.** participated in the following projects for the rotor dynamic development of Turbo-Charging systems for internal combustion engines of passenger cars and commercial vehicles:

• (Sep. 2013 - Feb. 2015) Basic Development - Methodology Bearing Development	R&D-Nr.: EB 0.86.051
• (Sep. 2013 – Feb. 2015) Basic Development – Rotordynamics	R&D-Nr.: EB 0.86.009
• (Feb. 2013 - Feb. 2015) JAGUAR LAND ROVER R2S 2.0L Diesel	R&D-Nr.: BF 1.49.002
• (Mar. 2013 - Feb. 2015) BMW B53 TU1 1.5L 3cyl. Gasoline	R&D-Nr.: RZ 1.02.001
• (Mar. 2013 - Feb. 2015) RENAULT K9K Gen7 Eu6C VTG (Variable Turbine Geometry)	R&D-Nr.: OR 1.14.018
• (Sep. 2014 - Feb. 2015) VOLKSWAGEN 2.0L CR 140/147kW MDB laengs (TiAl)	R&D-Nr.: KI 1.15.027
• (Sep. 2014 – Feb. 2015) FORD Advanced Development - Vorentwicklungzusammenarbeit	R&D-Nr.: EA 0.83.080
• (Nov. 2014 - Feb. 2015) DAIMLER AG - OM654DE20LA R2S EU6 160kW (BV35/B03)	R&D-Nr.: KI 1.09.032

- 4) As postdoctoral researcher in **Technische Universität Darmstadt** applied for funding, and executed the following projects for basic research:
  - (Sep. 2012 Jul. 2013) Simulation-design-construction of a journal bearing with variable geometry for the reduction of vibrations in rotating machinery. Project co-funded from the **BMWi** (German Federal Ministry of Economics and Energy/SIGNO) and the **TU Darmstadt**(Supervision: Prof. Dr.-Ing. Richard Markert, estimated budget over 100.000€)

• (May 2010 – Aug. 2012) The transient vibratory behavior of a rotor mounted on worn fluid film bearings passing through resonance. Project funded from the **Alexander von Humboldt Foundation**(Supervision: Prof. Dr.-Ing. Richard Markert, estimated budget over 50.000€)

### 9. Further Scientific Activities

- Associate Editor in the following international scientific journals:
  - 1) Journal of Engineering for Gas Turbines and Power, ASME (2019-2021)
  - 2) Shock & Vibration, Hindawi (since 2016)
- Guest Editor for special issues in the following international scientific journals:
  - 1) Design and Optimization of Rotor Dynamics in Applications, Applied Sciences, MDPI (2021)
  - 2) Dynamic Analysis and Control Applied in Nonlinear Rotor Systems, Shock and Vibration Hindawi (2021)
  - 3) Advances in research and dynamic analysis of high-speed rotating machines, Shock and Vibration Hindawi (2020)
  - 4) Rotordynamics in Automotive Engineering, Vehicles MDPI (2019)
  - 5) International Journal of Rotating Machinery Hindawi (2017)

### • Conference/Workshop/Minisymposium Organizer:

- 1) **Co-Chair**, and **co-organizer** of the "1<sup>st</sup> Workshop on Active Bearings in Rotating Machines", to be held in Athens in June 2022 (co-organized with Prof. Wolfgang Seemann, Karlsruhe Institute of Technology)
- 2) **Co-organizer** in the **Session** "Rotordynamic Testing and Rotor Bow" (4 papers in total) in ASME Turbo Expo 2021, virtual online conference
- 3) **Co-organizer** in the **Session** "Malfunctions and Diagnostic Techniques" (6 papers in total) in ASME Turbo Expo 2020, London (UK)
- 4) **Co-organizer** of the **Minisimposium** "Recent Advances in Rotordynamics" (2 sessions, 12 papers in total) in ICOVP 2019, Crete (GR)

# • Conference related activities (chronologically)

- 1) Member of the Scientific Committee in SIRM European Conference on Rotordynamics (2021)
- 2) Session co-Chair in ASME Turbo Expo 2020, London (UK)
- 3) Session Chair in COMADEM 2019, Huddersfield (UK)
- 4) Member of the International Scientific Advisory Committee of the COMADEM 2019, Huddersfield (UK)
- 5) Session Chair in ICOVP 2019, Crete (GR)
- 6) Session Chair in SIRM 2019, Copenhagen (DK)
- Member of the Industrial Committee in the ICORD 2018, 10th IFToMM International Conference on Rotor Dynamics 2018, Rio de Janeiro (BR)
- 8) Session co-Chair in MOVIC & RASD 2016, Southampton (UK)
- 9) **Member** of the Industrial Committee in the **ICORD 2014**, 9th IFToMM International Conference on Rotor Dynamics 2014, Milan (I)

# • Invited Talks:

1) Online Talk in workshop on Analytical and Numerical methods for Nonlinear Vibrations,

SRM Institute of Science and Technology, Tamilnadu (IN)

(23.09.2021)

- <u>Title</u>: Application of Numerical Continuation in the Dynamic Design of Nonlinear Rotor Systems
- 2) Online Talk in Rotor Bearing System Workshop RBS-2020, IIT Guwahati (IN)

(24.11.2020)

- <u>Title</u>: Nonlinear Dynamic Design of Rotor Systems in Turbomachines
- 3) Overview Talk in COMADEM 2019, University of Huddersfield, Huddersfield (UK)

(05.09.2019)

- <u>Title</u>: Challenges in Rotor Dynamic Design of Turbosystems
- 4) University of Southampton (SOTON) Institute of Sound and Vibration Research

(28.11.2017)

- <u>Title</u>: Turbomachinery Rotordynamics | Current research activity and future trends
- 5) National Technical University of Athens (NTUA) School of Mechanical Engineering

(22.09.2017)

- <u>Title</u>: Analysis & Design of Mechanical Structures | Trends in scientific research and technology | Development prospects in Greece and NTUA | Undergraduate and postgraduate education in the field

- **Reviewer**<sup>7</sup> in the following international scientific journals:
- 1) International Journal of Solids and Structures, Elsevier
- 2) Journal of Sound and Vibration, Elsevier
- 3) Communications in Nonlinear Science and Num. Simulations, Elsevier
- 4) Mechanical Systems and Signal Processing, Elsevier
- 5) International Journal of Bifurcation and Chaos, World Scientific
- 6) Mechanics Research Communications, Elsevier
- 7) International Journal of Structural Integrity, Emerald
- 8) Journal of Mechanics Engineering and Automation, David Publishing
- 9) Journal of the Brazilian Society of Mech. Sciences and Eng., Springer
- 10) Official Journal of the Brazilian Academy of Sciences
- 11) Journal of Mechanical Engineering Science, SAGE
- 12) Aircraft Engineering and Aerospace Technology, Emerald
- 13) Simulation Modelling Practice and Theory, Elsevier
- 14) Industrial Lubrication and Tribology, Emerald
- 15) IMechE, Part C: Journal of Mechanical Engineering Science, SAGE
- 16) IMechE, Part E: Journal of Process Mechanical Engineering, SAGE
- 17) IMechE, Part J: Journal of Engineering Tribology, SAGE
- 18) SN Applied Sciences, Springer Nature
- 19) ASME Letters in Dynamic Systems and Control, ASME
- 20) Aircraft Engineering and Aerospace Technology, Emerald
- 21) Journal of Vibration Engineering and Technologies, Springer

- 22) Tribology International, Elsevier,
- 23) Nonlinear Dynamics, Springer
- 24) Journal of Vibration& Acoustics, ASME
- 25) Journal of Vibration & Control, SAGE
- 26) Advances in Fuzzy Systems, Hindawi
- 27) Measurement, Elsevier
- 28) Lubrication Science, Wiley
- 29) Lubricants, MDPI
- 30) Acta Mechanica, Springer
- 31) Shock & Vibration, Hindawi
- 32) Applied Mathematical Modelling, Elsevier
- 33) Int. Journal of Mech. Sciences, Elsevier
- 34) Actuators, MDPI
- 35) Energies, MDPI
- 36) Vehicles, MDPI
- 37) Computation, MDPI
- 38) Micromachines, MDPI
- 39) Journal of Tribology, ASME
- 40) Applied Sciences, MDPI
- Reviewer in the following international scientific conferences:
  - 1) 9th IFToMM International Conference on Rotor Dynamics 2014, Milan (I)
- 2) ASME Turbo Expo 2015, Montreal (CN)
- 3) MOVIC & RASD 2016, Southampton (UK)
- 4) ASME Turbo Expo 2017, Charlotte (US)
- 5) ASME Turbo Expo 2018, Oslo (NO)
- 6) 10<sup>th</sup> IFToMM International Conference on Rotor Dynamics 2018, Rio de Janeiro (BR)
- 7) COMADEM 2019, Huddersfield (UK)
- 8) ASME Turbo Expo 2020, London (UK)
- Reviewer in the following editors:
  - 1) Springer/Springer Brief series, NY, USA
- **Evaluator** in the following organizations:
  - 1) FCT Portuguese public funding agency for R&D Civil and Mechanical Engineering and Engineering Systems (salaried)
  - 2) UKRI-EPSRC UK Research & Innovation Engineering and Physical Sciences Research Council, Associate Review College

### • PhD thesis examiner

- 1) "Optimization of Tribological Design of Internal Combustion Engines-Nanolubricants", submitted by Elias Tsakiridis and supervised by Assoc. Prof. Pantelis Nikolakopoulos in Dept. of Mech. Eng. In University of Patras, Hellas (2021)
- 2) "Applications of Oscillators in Energy Conversion", submitted by Andreas Paradeisiotis and supervised by Prof. Ioannis Antoniadis in School of Mech. Eng. NTUA, Hellas. (2019)
- 3) "Modelling and Model Reduction of Viscoelastic Composite Rotors: an Operator Based Approach", submitted by Saurabh Chandracker and supervised by Prof. Haraprasad Roy in National Institute of Technology Rourkela, Orissa, India. (2016)
- Member (subscribed) of:
- 1) IFToMM Technical Committee for Rotordynamics
- 3) ASME American Society of Mechanical Engineers
- 4) TEE Technical Chamber of Greece

# 10. Awards

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2) EUROMECH – European Mechanics Society

<sup>&</sup>lt;sup>7</sup> Approximately 25 reviews are performed each year

- (Jun. 2017) Award 'Beyond and Above' (700£) for the Patent [P2], General Electric Co.
- (Apr. 2010) Research fellowship award for postdoctoral researchers (54000€), Alexander Von Humboldt Foundation
- (Jun. 2004) Award for the excellence of studies in Mechanical Engineering, Technical Chamber of Greece (TEE)

# $\it 11$ . Courses and Training Seminars

- (05.09.2016 09.09.2016) **Course on Time-Periodic Systems: Theory and Application** in **CISM-16** (International Centre for Mechanical Sciences, Udine, I-33100)
- (Nov. 2015 Today) **Training Seminars** in **GE Oil & Gas** (Rugby, UK-CV212NH) and **GE Power** (Baden, CH-5401) on the following objectives:
  - a) 24.08.2016 Turbine Supervisory Systems
  - b) 11.08.2016 Lube Oil Systems
  - c) 17.03.2016 Steam Turbine Awareness (power Plant basics, thermodynamics, steam cycles, turbine architecture, main components, turbine auxiliaries and control)
  - d) 16.03.2016 Last Stage Low Pressure Blade Lifetime Assessment
  - e) 02.03.2016 Control and Determination of Steam Turbine Clearances
  - f) 18.02.2016 Steam Turbine Material Selection and Specifications
  - g) 20.01.2016 Bearing Design and Failure Mechanisms
  - h) 18.11.2015 Turbine Overview
- (Feb. 2015 Oct. 2015) **Training Seminars** in **ASLTOM Power UK** (Rugby, UK-CV212NH) and **ALSTOM Power** (**Schweiz) Ltd** (Baden CH-5401) on the following objectives:
  - a) 28.10.2015 Mechanical Integrity Aspects of Last Stage Blades
  - b) 10.07.2015 Gas Turbine Rotor Lifetime Assessment
  - c) 03.07.2015 Retrofit Case Study
  - d) 03.06.2015 Understanding Vibration Jumps
  - e) 29.04.2015 Shaft Line Dynamics Measurement
  - f) 23.04.2015 Mechanical Fatigue Data for Sub-Synchronous Vibration Protection of Nuclear Steam Turbine
  - g) 20.04.2015 to 30.04.2015 Industrial Steam Turbine Rotordynamics
  - h) 08.04.2015 Turbine Supervisory Systems
- (Sep. 2013 Feb. 2015) **Training Seminars** in **BorgWarner Turbo Systems Engineering GmbH** (Kirchheimbolanden DE-67292) on the following objectives:
  - a) Introduction to Product Development
  - b) Development of Machine Balancing
  - c) Introduction to Advanced Engineering
  - d) Introduction Controlling
  - e) Introduction to Basic Develop. Performance
  - f) Introduction Testing

- g) Intellectual Property (Patents)
- h) Introduction to Noise and Vibration Harshness and Prev.Acoustics
- i) Introduction to Materials Development and Structural Mechanics
- j) Introduction Basic Components Turbosystems
- k) Talent Management System Introduction
- I) Introduction to Application Performance/Validation and Simulation

# 12. Further Training/Studies/Education

- (01 Jul. 2002 31 Aug. 2002) Student trainee mechanical engineer in Agricultural Dairy Industry of Epirus DODONI SA. Ioannina 45110, Hellas
- (01 Sep. 2006 30 Jun. 2008) Music studies of drums, Municipal Conservatory of Patras, Patras 26221, Hellas
- (18 May 2009 18 Mar. 2010) Corporal of the Hellenic Army/Engineer Corps during the military service (obligatory for Greek citizens), specialized in minesweeping and destructions (Orestiada-Evros)

# 13. Publications, Reports, and Further Written Work (2006-2020)

(Citations: **500**, *h* index: **14** – **Excluding self citations** of **ALL** authors, Source: <u>SCOPUS</u>)

(Citations: 882, h index: 15, Source: GOOGLE SCHOLAR)

#### Books

[B2] **A. Chasalevris**, Analytical Solutions in Journal Bearings: A Treatment with Algorithms for Rotor Dynamic Applications. Springer, NYC (US), (to be finalized by end of 2021)

[B1]<sup>8</sup> <u>A. Chasalevris</u>, Nonlinear Simulation of Defected Rotor-Bearing Systems - Methods for Detection of Rotor Crack and Bearing Wear. LAP Lambert Academic Publishing, Saarbrücken, Germany (2011) ISBN-10: 3844385975

International Journals (Total Impact Factor<sup>9</sup>: 83.422 | Average Impact Factor: 3.627/article)

- [J23] L. Anastasopoulos and A. Chasalevris, Bifurcations of limit cycles in rotating shafts mounted on partial arc and lemon bore journal bearings in elastic pedestals. ASME Journal of Computational and Nonlinear Dynamics (IF: 2.085 Q2), (Accepted).
- [J22] A. Chasalevris, Stability and Hopf Bifurcations in Rotor-Bearing-Foundation Systems of Turbines and Generators.

  Tribology International (IF: 4.872, Q1), 145, 2020, 106154
- [J21] <u>A. Chasalevris</u>, and **J.C. Louis**, Evaluation of Transient Response of Turbochargers and Turbines Using Database Method for the Nonlinear Forces of Journal Bearings. <u>Lubricants</u> (IF: **2.451 Q2**), 7, 78, 2019
- [J20] A. Chasalevris and G. Guignier, Alignment and Rotordynamic Optimization of Turbine Shaft Trains Using Adjustable Bearings in Real Time Operation. Proc. IMechE Part C: Journal of Mechanical Engineering Science (IF: 1.762 Q2), 0(0), 2019, pp. 1-21
- [J19] A. Chasalevris and F. Dohnal, Improving Stability and Operation of Turbine Rotors Using Adjustable Journal Bearings.

  Tribology International (IF: 4.872 Q1), 104, 2016, Pages 369-382, doi: 10.1016/j.triboint.2016.06.022
- [J18] <u>A. Chasalevris</u>, An investigation on the Dynamics and Stability of High Speed Systems Using Analytical Floating Ring Bearing Models. <u>International Journal of Rotating Machinery</u> (IF: **0.811 Q3**), Vol. 2016, 2016, Article ID 7817134
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