

Curriculum Vitae of Nikolaos Michailidis, Professor Dr.-Eng.



PERSONAL DATA

Contact1: Physical Metallurgy Laboratory
School of Mechanical Engineering
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Contact2: Texas A&M Engineering Experiment Station (TEES)
Email: nmichail@tamu.edu

Date of birth: 09.11.1975, Ptolemaida, Greece
Marital status: Married with two children
Nationality: Greek

ACADEMIC/PROFESSIONAL APPOINTMENTS

2017 – present: Professor - Director // Physical Metallurgy Laboratory (PML), School of Mechanical Engineering, FE, AUTH, Greece.

2018 – present: Research Professor // Texas A&M Engineering Experiment Station (TEES).

2021 – present: Executive Committee Member (Elected) // Federation of European Materials Societies (FEMS), Brussels, Belgium

2020 – present: Scientific Coordinator // Megaproject 1: Advanced Materials and Manufacturing, Thessaloniki International Technology Center (ThessINTEC)

2020 – present: Editor-in-Chief, European Journal of Materials, Taylor & Francis and FEMS

2018 – present: Fellow (Elected) // International Academy for Production Engineering (CIRP), Paris.

2017 – present: President // Hellenic Metallurgical Society (HMS). Re-elected for the period 2020 – 2022.

2016 – present: Chair // Centre for Research & Development on Advanced Materials, a Joint initiative between TEES and AUTH.

2015 – present: Co-Founder // PLiN Nanotechnology SA, (AUTH spin-off). Focus: production of nanoparticles.

PAST ACADEMIC/PROFESSIONAL APPOINTMENTS

- 2018 – 2020: Director // Interdepartmental Post Graduate Studies Program: “Processes & Technology of Advanced Materials”, AUTH.
- 2017 – 2018: Chair // Design & Construction Division, School of Mechanical Engineering, Faculty of Engineering, AUTH.
- 2014 – 2016: Vice President // Hellenic Metallurgical Society (HMS).
- 2012 – 2019: Adjunct Professor // Materials Science and Production Engineering, MSc in Strategic Product Design, International Hellenic University, Greece.
- 2012 – 2017: Associate Professor // School of Mechanical Engineering, FE, AUTH, Greece.
- 2008 – 2018: Associate Member // International Academy for Production Engineering (CIRP)
- 2008 – 2015: Research Affiliate // Fraunhofer Project Center Coatings in Manufacturing.
- 2008 – 2009: Visiting Professor // Fraunhofer Institute for Production Technology (IPT), Aachen-Germany.
- 2006 – 2012: Assistant Professor // School of Mechanical Engineering, FE, AUTH, Greece.
- 2004 – 2006: Adjunct Professor // Rapid prototyping and Coatings on Coated Tools, School of Mechanical Engineering, AUTH, Greece.
- 2004 – 2006: Adjunct Professor // Production Engineering and FEM, Technological Education Institute of Thessaloniki, Greece.
- 2004 – 2006: Adjunct Professor // Design and Tribology, Technological Education Institute of Western Macedonia, Greece.

EDUCATION

- 2002 – 2006: Post-doctoral researcher at the Fraunhofer Project Center Coatings in Manufacturing, Center for Research & Technology Hellas (CERTH) and Aristotle University of Thessaloniki (AUTH).
- 1998 – 2002: Dr.-Eng. // School of Mechanical Engineering, Faculty FE, AUTH, Greece.
- 1993 – 1998: Integrated 1st and 2nd cycle Diploma and Master’s in Mechanical Engineering // FE, AUTH, Greece.

MEMBERSHIPS

- 2019 The Minerals, Metals & Materials Society, TMS
- 2015 Society of Engineering Science, SES
- 2015 Hellenic Society of Biomaterials, ESBiomat
- 2013 European Society of Biomechanics, ESB
- 2011 European Aeronautics Science Network, EASN

2010	German Society for Materials Science (Deutsche Gesellschaft für Materialkunde e.V., DGM)
2010	Committee of European Educational Programmes of AUTH
2007	Expert Group of the European Technological sub-platform MINAM (Micro- and NanoManufacturing)
2007	Association for Hellenic-European Studies
2006	Hellenic Metallurgical Society, HMS
2004	Hellenic Bioengineering Association
2004 – 2007	Delegation of the Technical Chamber of Greece (Central Macedonia department)
2001	Virtual Tribology Institute (VTI)
1998	Hellenic Union of Mechanical-Electrical Engineers
1998	Union of Mechanical-Electrical Engineers of Northern Greece
1998	Balkan Tribological Association
1998	Technical Chamber of Greece (TEE-TCG)

HONOURS

2018	Innovation Award by the AUTH.
2017	Excellency Award by the AUTH.
2016	Acknowledgement by the Aristotle University of Thessaloniki as one of the most active Staff of AUTH.
2016	Awarded by the Aristotle University of Thessaloniki as Faculty Advisor of the students' Formula SAE of AUTH for the achievements of the team.
2013	Finalist for the two-year Clinical Biomechanics Award to be conferred in the frame of the XXIV Congress of the International Society of Biomechanics, 4-9 August 2013, Natal, Brazil.
2013	Fellowship by the Research Committee of the Aristotle University of Thessaloniki for basic research in the field of porous metals production, development and properties determination.
2011	Awarded by the Aristotle University of Thessaloniki as Faculty Advisor of the students' Formula SAE of AUTH for the achievements of the team.
2011	Cover page of the published work in the Journal: Advanced Engineering Materials, ISSN 1438-1656, Vol. 13 (1-2), 2011, pp. 29-32, January, 2011.
2011-present	As Faculty Advisor of the Aristotle Racing Team (ART) of AUTH in the frame of Formula SAE, the following achievements have been attained by the ART: • 1 st place in the Acceleration run-off, Silverstone 2011. • 8 th place in the Overall ranking, Silverstone 2011. • «Virtual Formula Student» Award by Mobil 1, Silverstone 2011. • 3 rd place in Endurance and fuel consumption, Italy 2012. • 4 th place in Business plan presentation, Italy 2012. • 3 rd place in the Overall

- ranking, Italy 2012). • 5th place in cost event, Germany 2014. • 12th place in overall ranking, Germany 2014. • 5th place in cost event, Hungary 2014. • 3rd place in overall static events, Hungary 2014. • 3rd place in cost event, Italy 2014. • 4th in endurance race, Italy 2014. • 4th place in overall ranking, Italy 2014. • 2nd place in design, Italy 2015 (class 3). • 2nd place in overall ranking, Italy 2015 (class 3). • 2nd place in Cost and Sustainability, Hungary 2016. • 3rd place in overall ranking of combustion, Hungary 2016. • Best Design Report Award, Italy 2017. • 3rd place in overall ranking of combustion, The Netherlands 2019. • 3rd place in Endurance and Fuel Efficiency, The Netherlands 2019. • 3rd place in Engineering Design, The Netherlands 2019.
- 2010 Awarded by the Aristotle University of Thessaloniki for his participation in the Advising Group of the students' Formula SAE.
- 2009 – 2016 Various distinctions of members of his Research Group.
- 2008 – 2009 Fellowship by the SEW Eurodrive Foundation (Germany) for Visiting Professor in Fraunhofer Institute for Production Technology (Aachen, Germany).
- 2008 Excellency & Innovation Award by the Aristotle University of Thessaloniki.
- 2004 – 2006 Postdoctoral research scholarship, Ministry of Education: Pythagoras I: Optimum management of industrial products at the end of their operational life.
- 2004 State Scholarships Foundation (IKY), Postdoctoral research scholarship
- 1996 – 1998 National scholarships for the performance as student of Mechanical Engineering

SCIENTIFIC INTERESTS

Shape memory alloys / Thin hard coatings' / Manufacturing / Nanoindentation / Materials' characterization / Finite Elements Method (FEM) / Additive Manufacturing / Nanotechnology / Biomaterials & Bioengineering / Porous Materials / Fatigue & stress-corrosion cracking.

LANGUAGES

Greek (Native), English (Proficiency level), German (Medium), French (Basic)

SCIENTIFIC ACTIVITY

- Participated in 100+ R&D projects (in 60 as coordinator).
- Member of the International Scientific Committee, FEMS Junior Euromat 2022, 19 – 22 July 2022, Coimbra - Portugal.
- Member of the Scientific Committee, 6th CIRP Conference on Surface Integrity (CSI 2022), June 8-10, 2022, Lyon, France
- Co-Editor: THEA 2020 special issue at "Defect and Diffusion Forum" of Trans Tech Publications, 14th THEA Coatings Conference, November 19-20, 2020.
- Co-organizer, Deep Tech Talk Webinar Series: From Research to Marketplace / The Path for Commercialization of Deep Technologies, 13 July 2020.

- Co- organizer, Deep Tech Talk Webinar Series: From Research to Marketplace / Perspectives of Global Investors in Deep Technologies, 30 September 2020.
- Co-organizer, Deep Tech Talk Webinar Series: From Research to Marketplace / Innovation and Entrepreneurial Mindset in Engineering Education, 21 October 2020.
- Associate Editor, Frontiers in Manufacturing Technology, Frontiers (2021)
- Member of the Scientific Committee: 11th EASN International Conference on Innovation in Aviation & Space to the Satisfaction of the European Citizens, September 1-4, 2021, Salerno, Italy.
- Member of the International Scientific Committee, International Conference on Materials Science and Engineering (Materials OCEANIA 2021), October 11-14, 2021, Brisbane City, Australia
- Co-Organizer of 7th AMS2021 Online Summer School on "Advanced Material Systems: Manufacturing – Characterization – Modeling", July 12-16, 2021.
- Symposium organizer: "Micro- and nano-mechanical characterization and modelling of advanced materials", International Scientific Committee, 6th International Conference of Engineering Against Failure (ICEAF VI), 23 - 25 June 2021, Virtual, Greece.
- Member of the International Scientific Committee, 6th International Conference of Engineering Against Failure (ICEAF VI), 23 - 25 June 2021, Virtual, Greece.
- Member of the Scientific Committee, 8th Metrology Conference, May 14-15 2021, Thessaloniki, Greece.
- Member of the Scientific Committee, 14th International Conference THE"A" Coatings Conference, November 19-20, 2020, Nurnberg-Germany.
- Member of the International Scientific Committee (ISC), 20th International Metallurgy and Materials Congress (IMMC'2020), 12-14 November 2020, Istanbul, Turkey.
- Symposium co-organizer: 3D/4D Printing and Advanced Manufacturing of Materials And Structures, 57th Annual Technical Meeting of the Society of Engineering Science (SES), September 28-30, 2020, Minneapolis, MN, USA
- 1st international conference ROIMAT (Reliable Operating Internet of Manufacturing Automation and Technology), 9-10 September 2020, Istanbul-Turkey.
- Member of the Scientific Committee: 10th EASN International Conference on Innovation in Aviation & Space to the Satisfaction of the European Citizens, September 2-5, 2020, Salerno, Italy.
- Co-Organizer of AMS2020 Online Summer School on "Advanced Material Systems: Manufacturing – Characterization – Modeling", July 20-24, 2020.
- Member of the Scientific Committee: 5th CIRP Conference on Surface Integrity (1st E-conference) June 1-5, 2020.
- Member of the Advisory Committee, Junior Euromat 2020, November 15-19, 2020, Granada, Spain.
- Organizer of the global 48h student competition "Invent for the Planet", 14-16 February 2019, at AUTH.
- Co-Chair of the 7th Hellenic Conference on Metallic Materials, 11-13 December 2019, Athens, Greece.
- Co-Organizer of AMS2019 Summer School on "Advanced Material Systems: Processing-Characterization-Modeling", June 26 - July 3, 2019, Thessaloniki Greece.
- Co-Organizer of TECC – Technology, Entrepreneurship & Commercialization Cloud for Innovation, June 26 – 28, 2019, Thessaloniki Greece.

- **Chair of the Scientific Committee, EUROMAT 2019, 1-5 Sept. 2019, Stockholm, Sweden.**
- Symposium co-organizer, D3: Mechanical characterization and modelling of advanced materials, EUROMAT 2019, 1-5 Sept. 2019, Stockholm, Sweden.
- Symposium co-organizer, D5: Micro- and Nano-mechanics – Characterization and Modelling, EUROMAT 2019, 1-5 Sept. 2019, Stockholm, Sweden.
- Member of the Scientific Committee: 9th EASN International Conference on Innovation in Aviation & Space, September 3-6, 2019, Athens, Greece.
- Faculty Advisor of the Aristotle Racing Team of AUTH in the frame of Formula SAE (2011-present)
- Member of the Editorial Committee of the CIRP Sponsored Conference on Supervising and Diagnostics of Machining System, 10-14 March 2019, Karpacz, Poland.
- Organizer of the global 48h student competition “Invent for the Planet”, 15-17 February 2019, at AUTH.
- NACE Corrosion Research Consortia (NCRC) Governance Sub-team, USA, 2018.
- Member of the Organizing Committee of the International Conference on Injury Biomechanics (IRCOBI), September 12-14, 2018, Athens, Greece.
- Member of the Advisory Committee, Junior Euromat 2018, July 8-12, 2018, Budapest, Hungary.
- Co-Organizer of AMS2018 Summer School on "Advanced Material Systems: Processing-Characterization-Modeling", July 3-9, 2018, Thessaloniki Greece.
- Organizer of the Workshop on the occasion of the conferment to Honorary Dr. of AUTH of Prof. Dimitris C. Lagoudas, July 3, 2018, Thessaloniki Greece.
- Member of the Scientific Committee: 5th International Conference of Engineering Against Failure (ICEAF V), 20-22 June 2018, Chios, GREECE.
- Scientific Committee, International Conference on Mechanics and Material Science (MMS 2017), December 15-17, 2017, Guangzhou, China.
- **Chair of the 13th International Conference THE“A” Coatings in Manufacturing Engineering, October 5-6, 2017, Thessaloniki-Greece.**
- President of the Organizing Society HMS + Scientific Committee + Management Committee: 15th European Congress and Exhibition on Advanced Materials and Processes (EUROMAT2017), September 17–22, 2017, Thessaloniki, Greece.
- Area Coordinator “C: Processing”: FEMS EUROMAT 2017, September 17-22, 2017, Thessaloniki, Greece.
- National Advisory Committee, 28th Annual Conference of the European Society of Biomaterials (ESB), 4-8 September 2017, Athens, Greece.
- Invited Symposium: “ESB-FEMS (Federation of European Materials Societies) joint Special Session - Multifunctional Biomaterials”, 28th Annual Conference of the European Society of Biomaterials (ESB), 4-8 September 2017, Athens, Greece.
- Co-Organizer of AMS2017 Summer School on "Advanced Material Systems: Experimentation & Modeling", July 4-11, 2017, Thessaloniki Greece.
- Member of the Scientific Committee: 6th Hellenic Conference on Metallic Materials, 7-9 December 2016, Ioannina, Greece.
- Member of the Scientific Committee: Advances in Materials and Processing Technologies (AMPT16), 8-11 November 2016, Kuala Lumpur, Malaysia.
- Member of the Scientific Committee: 12th International Conference THE“A” Coatings in Manufacturing Engineering, 31 March - 1 April 2016, Hannover-Germany.

- **Chair of the Scientific Committee, Junior EUROMAT 2016, July 10-14, Lausanne, Switzerland.**
- Topic Chair of “Design, Processing, Manufacturing & Recycling”: FEMS Junior Euromat 2016, July 10-14, 2016, Lausanne, Switzerland.
- Co-Organizer of IIMEC2016 Summer School on "Advanced Material Systems: Experimentation & Modeling", July 3-9, 2016, Thessaloniki Greece.
- Member of the Management Committee of European COST Action CA16122 “Biomaterials and advanced physical techniques for regenerative cardiology and neurology (BIONECA)” (2016 – present).
- Review editor: 10th World Biomaterials Congress (WBC), May 17-22, 2016, Montreal, Canada.
- Co-Organizer of IIMEC2015 Summer School on "Advanced Material Systems: Experimentation & Modeling", July 13-18, 2015, Thessaloniki Greece.
- Member of the Scientific Committee: 4th International Conference of Engineering Against Failure (ICEAF IV), 24-26 June 2015, Skiathos, Greece.
- Organizer of the symposium on Biomaterials properties and applications - 4th International Conference of Engineering Against Failure (ICEAF IV), 24-26 June 2015, Skiathos, Greece.
- Co-Organizer of the symposium on Porous materials: manufacturing methods, properties and applications - Advances in Materials and Processing Technologies (AMPT15), December 14-17, 2015, Madrid, Spain.
- Member of the Scientific Committee: International Conference on Bioinformatics Models, Methods and Algorithms (BIOINFORMATICS 2015), Lisbon, Portugal, January 12 - 15, 2015.
- Member of the Scientific Committee: 4th International Conference of Engineering Against Failure, 24-26 June 2015, Skiathos, Greece.
- Member of the Scientific Committee: 4th CIRP Global Web Conference on “Understanding the life cycle implications of manufacturing” (CIRPe2015), 29 September-1 October 2015, hosted by Cranfield University, UK.
- Member of the Scientific Committee: Advances in Materials and Processing Technologies (AMPT15), December 14-17, 2015, Madrid, Spain.
- Member of the Scientific Committee: International Conference on Bioinformatics Models, Methods and Algorithms (BIOINFORMATICS 2015), Lisbon, Portugal, January 12 - 15, 2016.
- Member of the Scientific Committee: 6th National Conference of the Hellenic Society of Biomechanics, 10-12 October 2014, Patras.
- Member of the Scientific Committee: International Conference on Bioinformatics Models, Methods and Algorithms (BIOINFORMATICS 2014), Angers, Loire Valley, France, March 3 - 6, 2014.
- Member of the Scientific Committee: International Conference on Biological Engineering and Biomedical (BEAB 2014), January 10-12, 2014, Yichang, China.
- Member of the Scientific Committee: 8th International Conference BalkanTrib’14, October 30-November 1, 2014, Sinaia, Romania.
- Member of the Scientific Committee: 11th International Conference “THE-A” Coatings in Manufacturing Engineering, 1-3 October 2014, Thessaloniki, Greece.
- Member of the Scientific Committee: 10th International Conference THE”A” Coatings in Manufacturing Engineering, 10-11 April 2013, Aachen-Germany.
- Member of the Scientific Committee: Materials and Renewable Energy Congress (MRS13), Athens, 1-3 July 2013.

- Member of the Scientific Committee: 5th Hellenic Conference on Metallic Materials, 21-22 November 2013, Volos.
- Organizer of the symposium on Tribology in Manufacturing in the World Tribology Congress to be held in Torino in September 2013.
- Member of the Management Committee of European COST Action MP1301 “New Generation Biomimetic and Customized Implants for Bone Engineering (NEWGEN)” (2013 – present).
- Member of the Scientific Committee: 5th National Conference of the Hellenic Society of Biomechanics, 28-29 September 2012, Thessaloniki.
- Member of the Scientific Committee: 9th International Conference THE”A” Coatings in Manufacturing Engineering, 3-5 October 2011, Thessaloniki-Greece.
- Member of the Scientific Committee: 4th International Conference on Manufacturing Engineering ICMEN, 3-5 October 2011, Thessaloniki-Greece.
- Member of the Scientific Committee: 7th International Conference BalkanTrib’11, 3-5 October 2011, Thessaloniki-Greece.
- Member of the Scientific Committee: 4^o Hellenic Conference on Metallic Materials, 4-5 November 2010, Thessaloniki.
- Member of the Scientific Committee: 3rd International Conference on Manufacturing Engineering ICMEN, 1-3 October 2008, Halkidiki-Greece.
- Member of the Scientific Committee: 7th International Conference “THE” Coatings in Manufacturing Engineering, 1-3 October 2008, Halkidiki-Greece.
- Member of the Scientific Committee: 6th International Conference “THE” Coatings in Manufacturing Engineering, 25-26 October 2007, Hannover-Germany.
- Member of the Scientific Committee: 5th International Conference “THE” Coatings in Manufacturing Engineering, 5-7 October 2005, Halkidiki-Greece.

EDITORIAL ACTIVITY

- Editor in Chief, European Journal of Materials, Taylor & Francis, (2020).
- Member of the Editorial Board, Molecules, MDPI (2020).
- Editor of Special Issue at Molecules: Corrosion: A phenomenon starting at atomic level causing a huge impact on structures
- Member of the Editorial Board, Metals, MDPI (2020).
- Member of the Editorial Committee, International Academy for Production Engineering (CIRP), Paris. (2019). Journal: CIRP Annals - manufacturing technology, Elsevier.
- Guest Editor: Metals, Special Issue: Physical Processes (bio-synthesis) in the Production of Metal and Metal Oxide Nanoparticles and Applications, MDPI, (2015).
- Editorial Board: Journal of Advanced Research in Applied Mechanics & Computational Fluid Dynamics, Advance Research Publication (2014-).
- Review Editor: Frontiers, Switzerland (2014-).
- Lead Guest Editor: Advances in Materials Science and Engineering, Special Issue on Production, Characterization and Applications of Porous Materials (2013).
- Editorial Board: ISRN Mechanical Engineering, Hindawi (2013-2017).
- Editorial Board: ISRN Nanotechnology, Hindawi (2012-2017).
- Lead Guest Editor: Advances in Tribology, Special Issue: Wear-Related Phenomena in Advanced Materials (2011).

- Editorial Board: International Journal of Manufacturing Science and Engineering (IJMSE), Serials Publications (2011-).
- Co-Editor: Proceedings of the 4th Hellenic Conference on Metallic Materials, 4-5 November, 2010, Thessaloniki-Greece.

REVIEWING ACTIVITY IN PEER-REVIEWED JOURNALS (SELECTION)

- Additive Manufacturing, *Elsevier*
- Applied Physics A, *Springer*
- Ceramics International, *Elsevier*
- Chemical Vapor Deposition, *Wiley-VCH*
- CIRP Journal of Manufacturing Science and Technology, *Elsevier*
- Colloids and Surfaces A: Physicochemical and Engineering Aspects, *Elsevier*
- Computational Materials Science, *Elsevier*
- Computer Methods in Biomechanics and Biomedical Engineering, *Taylor & Francis*
- Frontiers Chemistry, *Frontiers*
- Fuel, *Elsevier*
- High Pressure Research, *Taylor & Francis*
- International Journal of Sustainable Energy, *Taylor & Francis*
- International Journal of Structural Integrity, *Emerald*
- International Journal of Molecular Sciences, *MDPI*
- International Journal of the Biology, Chemistry, Physics, and Technology of Wood, *Holzforschung*
- Journal of Cranio-Maxillary Diseases, *Asociación Ayuda Enfermo Neuroquirurgico*
- Journal of Materials Engineering and Performance, *ASM*
- Journal of Alloys and Compounds, *Elsevier*
- Journal of Materials Science, *Springer*
- Journal of Porous Materials, *Springer*
- Materialia, *Elsevier*
- Materials Science & Engineering A, *Elsevier*
- Materials Science & Engineering B, *Elsevier*
- Materials Science & Engineering C, *Elsevier*
- Materials Research Innovations, *Maney Publishing*
- Materials, *MDPI publishing*
- Materials Characterization, *Elsevier*
- Materials Chemistry and Physics, *Elsevier*
- Materials & Design, *Elsevier*
- Metals, *MDPI publishing*
- Mechanics of Materials, *Elsevier*
- Metallurgical and Materials Transactions A, *Springer*
- Nanomaterials and Nanotechnology, *Intech*

- Nanomaterials, *ISRN*
- Production Engineering, *Springer*
- Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, *SAGE*
- Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, *SAGE*
- Solar Energy Materials and Solar Cells, *Elsevier*
- Steel Research International, *Wiley-VCH*
- Surface & Coatings Technology, *Elsevier*
- The Korean Journal of Chemical Engineering, *Springer*

PUBLISHED WORK

Journal Publications: 139

Publications in International Conferences: 285

Book Chapters: 4

Articles in International Encyclopaedias: 4

Publications in Greek language in National Conferences: 130

Patents: 14

Citations:

GoogleScholar: **4549** citations / h-index: **37**