Professor Nouredine FENINECHE
ICB Laboratory/ FR FUEL CELLS LAB
Head of Additive Manufacturing and Powders Research Group
Head of International Relations
Mechanical Engineering and Design Department
Université de Technologie de Belfort-Montbéliard

Pr. Nouredine FENINECHE has obtained his PhD Thesis in Mechanical Engineering and Materials from the University of Technology of Compiègne (UTC), France.
His main Research activities and expertise are focused on: Materials for hydrogen and energy storage in Batteries and Tank, Elaboration of Nanomaterials for IT-SOFC Fuel Cells in mobile applications, Magnetic thin films for Sensors and actuators, Amorphous and Nanocrystalline Coatings intended for magnetic shielding using HVOF and cold spraying, Magnetic materials processed by Selective laser Melting SLM and 3D printing for lightening structures.
His scientific production more than 150 papers in international reviews journals (refereed Journals), 3 book chapters, 145 international conferences reviewed and proceedings and 45 international conferences with personal invitation.

Mohamed BECHERIF

Mohamed Becherif obtained his Engineer in Automatic Control from Polytechnical School of Algeria 99, DEA and PhD in Automatic Control from University of Paris Sud/Supélec in 2001 and 2004 respectively and joined UTBM since 2004. He is the Head of the Smart Building and Energy Efficiency, Energy Department and member of Femto-ST CNRS Lab. He is/was a scientific co-responsible or Principal Investigator in three European Projects FP7, French and international projects, and several industrial projects. He is co-author of more than 125 journal papers and more than 300 conference papers. He was/is the Manager Editor and Guest Editor of different Special Issue in different Elsevier Journals.

He was the General Chair of the following conferences: ICEREGA'16 + 17 +18+20, EMF'17, cochair of ICEE'17, International Examinator on Energies for Czech Republic, Estonia, EAU, Egypt. He was/is the supervisor of 20 PhD and jury member in 21. He was invited professor in China, Canada, Egypt and Algeria. In 2020, 2021, 20233 and 2023, he was/is listed by Stanford University as one of the World's top 2% Scientists (most cited scientists in various disciplines).

Dr. Tedjani Mesbahi

Associate Professor in Electrical Engineering

ICube Laboratory (UMR7357)

INSA Strasbourg

Dr. Tedjani Mesbahi is a renowned researcher currently serving as an Associate Professor (McF HdR) at INSA Strasbourg, affiliated with the ICube-CNRS laboratory, France. Coming from an engineering background. He obtained his Engineer Diploma and M.Sc. in Electrical Engineering from the UBMA and Polytechnic School of Algiers (EMP), Algeria, in 2008 and 2011, respectively. He then completed his Ph.D. in Electrical Engineering at Ecole Centrale Lille and ESTACA, France in 2016, and obtained his HdR (Agreement for Research Management) from the University of Strasbourg in 2023, he brings extensive knowledge and expertise to his current role.

From 2017 to 2023, Dr. Mesbahi spearheaded several research projects, securing funding through national and European project calls as well as industrial contracts. Notable examples include the Interreg VEHICLE project (2019-2022) with a budget of 1M€ and the Horizon Europe project ENRGETIC (2023-2027) with a budget of 5M€. His contributions extend to publishing over 50 papers, reflecting a notable H-index of 19.

Dr. Mesbahi's career has encompassed diverse roles, including R&D engineer, Post-Doc researcher with Valeo , ADEME, and L2EP laboratory, and assistant professor in engineering preparatory classes and bachelor's degree programs. This breadth of experience showcases his ability to engage with a broad audience and address a wide spectrum of interests.

Since 2018, he has been at the forefront of a pioneering training program focused on Industry 4.0 within the Electrical Engineering Department at INSA Strasbourg. Additionally, in 2020, he assumed the role of research team coordinator, underscoring his leadership in academic and research initiatives.

At the core of Dr. Mesbahi's research is the development of optimal energy management strategies for electric vehicles, integrating artificial intelligence and conducting real-world battery tests. His objectives encompass enhancing battery lifetime, analyzing aging patterns, and implementing advanced techniques. His overarching goal is to introduce innovative solutions that elevate vehicle performance across various parameters, including range, lifetime, volume, mass, and overall battery ownership costs (Total Cost of Ownership or TCO).

Professor Omar Elkedim

Omar Elkedim holds a phD in chemistry of materials from the University of Technology of Compiegne (France) and a habilitation degree from the University of Haute Alsace (Mulhouse, France). He is a professor at University of Technology of Belfort-Montbéliard. He makes his researches in the MN2S department, within the
FEMTO-ST institute. His research is focused on the elaboration and characterization of physico-chemical properties of nanocrystalline materials obtained by ball milling. Since 2008, he is interested in the characterization of solid hydrogen storage properties within FC-Lab (Fuel Cell-Laboratory). He is authored or co-authored about 120 papers in international and national peer-reviewed journals and he has participated at 150 international and national conferences. He participated or presided different regional, national and international scientific research projects. He has a cooperation with foreign institutions from Poland, Spain, China, UK, Tunisia…

Prof. Hakim Naceur
Head of Mechanical Engineering Department
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Biography

Hakim Naceur is currently Professor at INSA Hauts-de-France and the Head of Mechanical Engineering Department of the Engineering School INSA Hauts-de-France. Prof. Naceur is the Head of the Research team on Computational Structural Mechanics & Energetic Processes at the laboratory of Industrial and Human Automation control, Mechanical engineering and Computer Science (LAMIH UMR CNRS 8201) which is a joint research unit of the French National Centre for Scientific Research. He received his Mechanical Engineering degree from the University of Batna (Algeria) in 1993, then his M.S. degree from University Pierre and Marie Curie (France) in 1994 and his Ph.D. from the University of Technology of Compiegne (France) in 1998.

He started as Assistant Professor (2000-2007), then Associate Professor (2007-2009) at the University of Technology of Compiegne. In September 2009, he moved to the Polytechnical University of Hauts-de-France as a full Professor and since January 2020, he is Professor at INSA Hauts-de-France. His research activities concern the computational structural mechanics including the development of advanced meshless techniques applied to multi-material shell structures for energy dissipation in shocks and impacts using homogenization techniques and multi-scale approaches. Other works include the modeling of metal forming processes, additive manufacturing, and optimization algorithms. To date, he authored more than 88 papers in peer-reviewed journals and 140 international conference papers and book chapters dealing with computational mechanics.

M. Farouk Benmeddour

M. Benmeddour est un Enseignant-Chercheur à l'Institut National des Sciences Appliquées Hauts-de-France (INSA HdF) et à l'Institut d'Électronique de Microélectronique et de Nanotechnologie (IEMN) depuis 2011, il est membre permanent du groupe Transduction, Propagation et Imagerie Acoustique (TPIA) à Valenciennes, France. Ingénieur en électronique, diplômé en 2000, de l'Université de Batna en Algérie. Il a ensuite obtenu un diplôme d'études approfondies (DEA) en 2002 de l'Université de Valenciennes et du Hainaut Cambrésis (UVHC) en France. Diplômé d'un doctorat en électronique, spécialité ultrasons en 2006 à l'IEMN-DOAE, UVHC et d'une habilitation à diriger les recherches (HDR) en 2018. Son domaine de recherche principal concerne la surveillance de l'intégrité structurelle, le contrôle santé integré et non destructifs (CSI - CND) dans divers industries tels que le transport et l'énergie, en mettant l'accent sur l'utilisation d'ondes ultrasonores guidées : caractérisation, propagation et interaction avec l'endommagement. Entre 2007 et 2011, il a mené des recherches en post-doctorat au Laboratoire Central des Ponts et Chaussées (LCPC), puis à l'Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR). M. Benmeddour a occupé de nombreuses responsabilités au sein de la Société Française d'Acoustique (SFA). Depuis 2015, élu à la Section Régionale du Grand Nord (SRGNO) et responsable scientifique pendant deux mandats de 2017 à 2020. Élu au conseil d'administration (CA) de la SFA à trois reprises, il est son secrétaire général depuis 2022, et conseiller chargé des nouveaux adhérents de 2020 à 2021. Nommé membre au conseil scientifique du Centre de Recherche en Technologies Industrielles (CRTI) à Chéraga, Algérie à partir de 2014. Il est membre du CoPil OpenINSA depuis 2019 et du CoPil opérationnel CPER RITMEA et responsable d'un WP depuis 2022 ainsi que responsable d'un thème multidisciplinaire de la Fédération de Recherche : Transport Terrestre et Mobilité (FR TTM CNRS 3733) entre 2016 et 2022. Il est également élu au conseil de département électronique à l'INSA HdF. En outre, il assure la responsabilité pédagogique de la spécialité ingénieur mécatronique à l'INSA HdF depuis 2020 et responsable scientifique de plusieurs projets de recherche et pédagogique.

Dr. Nadhir Lebaal

Biographical notes: Dr. Nadhir Lebaal received his PhD in Mechanics and Energy from the National Institute of Polytechnique of Lorraine (INPL), France. He was an Assistant Professor in computational mechanics at the High School of Engineering Design (GIP-InSIC) in Saint-Dié-des-Vosges, France for 2 years. Then, he was an Associate Professor at the Ecole des Mines of Albi-Carmaux for one year. He joined the University of Technology of Belfort-Montbéliard (UTBM) in France in 2009 as a Permanent full-time Associate Professor. He currently conducts research at the ICB-COMM/UMR CNRS 6303 laboratory. His research interests include optimization and numerical modeling in multi-physics (structural mechanics, thermal and fluid dynamics). He develops model-based design tools and optimization methods coupled with numerical simulation to optimize product-process-material interaction. Surrogate model methods from the field of artificial intelligence (AI) are developed and used to substitute complex process modeling through learning from numerical simulation models to speed up the optimization process. Currently, he is the head of the Engineers Training by Apprenticeship (FISA-Mechanics "CoMET") and manages a research axis in the area of robust engineering and optimization of Product-Process-Material interactions. Nadhir Lebaal has published over 100 peer-reviewed papers and conference papers in the following fields: computational mechanics, optimization, material processing. His major research interest is polymer processing design, development of mathematical optimization applied to extrusion design, and sheet metal forming. Recent work has focused on 3D Additive Manufacturing (AM). He develops research on numerical simulation and optimization of lattice structures produced by AM to address issues of structural lightening and optimization of heat exchange systems.

Dr. Djafar Chabane

Dr. Djafar Chabane received electrical engineering degree and M.S degree in electrical engineering from the University of TIZI-OUZOU, Algeria, in 2011, then he obtained M.S degree in physics and Engineering of energy from Ecole normale supérieure de Cachan, France, in 2013 and the Ph.D. degree in engineering sciences from University of Bourgogne Franche-Comté, France, in 2017. Since September 2020, he is an Associate Professor with the University Bourgogne Franche-Comté and UTBM, with the FEMTO-ST Institute, and also with the FCLAB Research Center. His research is focused on Fuel Cells, hydrogen green production and hydrogen storage in solid form by developing energy management strategies, smart control approaches for transportation and stationary applications..

Bachir Bendjedia

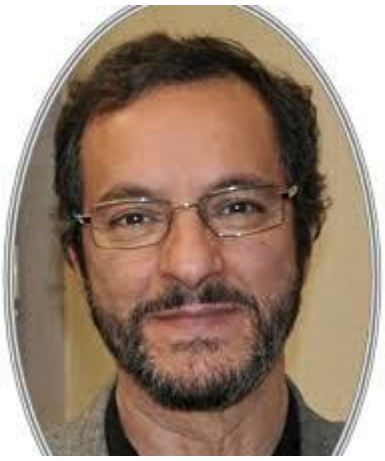
Enseignant Chercheur, Responsable de la Formation licence "Automatique"
Département d'électrotechnique
Faculté de Technologie
Laboratoire d'Analyse et de Commande des Systèmes d'Energie et Réseaux Électriques
Université Ammar Telidji B.P 37G Route de Ghardaïa - Laghouat Algérie

Bachir Bendjedia received a state engineer's degree in electrical engineering from Amar Telidji University of Laghouat, Laghouat, Algeria, in 2010. Following this, he obtained a Magister's (Bac+7) degree in Electrical Engineering from the Polytechnic School of Algiers. In November 2015, he joined ESTACA'LAB in Paris, France, as a Research Assistant. He completed his PhD at the University of Science and Technology – Houari Boumediene in November 2017
. Currently, he holds the position of Professor in the Department of Electrical Engineering at the University of Laghouat and serves as an associate researcher at ESTACA'LAB laboratory in France. His research interests include energy storage systems, power electronics converters, electric vehicles, and fuel cell systems.

Prof. Abdelmalek KHEZZAR :

originaire de Batna en Algérie où il est né en 1969, il a entrepris des études d'ingénieur en génie électrique à l'université locale, obtenant son diplôme en 1993. Poursuivant ses travaux, il a décroché un doctorat à l'Institut National Polytechnique de Lorraine en France en 1997. De retour en Algérie dès 2000, il a intégré l'Université Mentouri de Constantine en tant que chargé de cours au département de génie électrique. Depuis 2008, il occupe le poste de professeur au sein de cette même université et dirige depuis 2009 le Laboratoire d'Électrotechnique de Constantine. Ses recherches se concentrent principalement sur l'électronique de puissance, les systèmes d'entraînement, l'analyse des machines électriques, avec un intérêt marqué pour le diagnostic des défaillances.

Abdelkrim Redjaïmia



Abdelkrim Redjaïmia is an Emeritus Professor at the Université de Lorraine, France. He was for more than 3 decades a teacher at the EEIGM (Ecole Européenne d'Ingénieurs en Génie des Matériaux) − Université de Lorraine, in Nancy, France. (EEIGM = High European School of Engineering Materials). He is a member of the two following Research Laboratories:
1. Institut Jean Lamour, UMR 7198 CNRS, Université de Lorraine, F-54011 Nancy, France
2. Laboratory of Excellence "Design of Alloy Metals for Low-mass Structures" (LabEx−DAMAS),Université de Lorraine, F−57070 Metz, France.

He is a member of the Scientific Council of the Research Center in Industrial Technologies (CRTI)−Chéraga - Algeria. His research interests include:

Material Science:

- Solid state phase transformations and structure/property relationships, in metallic alloys
- Crystallography − Crystal Morphology

Microstructure Caracterisation technics:

- Electron microscopies: TEM (BF, DF, HAADF, HREM imaging modes); SEM (SE, BSE modes)
- Electron diffraction (SAED, CBED, micro-diffraction, precession modes).
- X-rays diffraction (structure and microstructures, etc.)
- Spectroscopy (EDS, WDS modes)

Materials of interest:

- Steels, (carbon-steel, stainless steels)
- Light alloys (TiAl, Al-Mg-Si),
- High Entropy Alloys (HEA)

Mechanical Caracterisation technics:

- Hopkinson bars, Hardness, Nanoindentation, Tensile machine, etc.,

His more recent evolving areas of research include:

- Correlation between the fractal dimension and microstructure-mechanical properties
- of engineering alloys (Fe-C-V and Fe-Ni, etc.),
- Crystal Defects 0-3D: (Vacancies, Dislocations, Twinning, Grans boundaries, Pores).
- Nitrogen metallurgy (Fe-N, Fe-N-Si),
- Phase transformations in stainless steels under intense magnetic field (20 Tesla),
- HEA (High Entropy Alloys) and Refractory-HEA (R-HEA), Light weight R-HEA (LWR-HEA),
- Multi-component alloys (MCA).
- HEA as Biomedical materials (Dental implants, etc.)
- Lanthanids (rare earths), etc.,
- Storage of Hydrogen in HEA (Laves Phases).