

King Abdullah University of Science and Technology

FACULTY

RECOGNITION DINNER

Tuesday, November 22, 2022 Celebrating Excellence



Larry Carin

Provost



BESE

Biological and
Environmental Science
and Engineering Division



Iain Young
Dean



Ikram Blilou

Promoted to the rank of Professor
Plant Science

Ikram Blilou earned her Ph.D. in Plant Physiology from Consejo Superior de Investigacion Cientifica), University of Granada, Granada, Spain. At KAUST. Her research studies mechanisms regulating stem cell specification and maintenance in plants. She also studies how cell-cell signaling regulates growth and defense against pathogens. At KAUST, she established a research program to understand strategies for adaptation of desert plants within their native harsh. Her team uses multidisciplinary approaches to understand these processes and implements deep learning and computer vision to analyze and quantify dynamic processes in vivo ranging from protein associations to pathogen invasion, disease detection, and growth quantification. Ikram is considered a world leader in her field and published her work in prestigious journals such as Cell, Nature, Nature Plant, Nature Communications, Science Advances, and Plant Cell.



Samah Gadhoun earned her PhD in Cellular and Molecular Biology - Université Paris V - René Descartes, Paris, France in 2003. From 2004 to 2010, she worked as a Post-Doctoral Fellow and Advisor at Harvard Institute of Medicine and Brigham and Woman's Hospital/Harvard Medical School. Dr. Gadhoun has been always interested in teaching and mentoring. She was engaged in giving guest lectures and mentoring graduate students, while being a Senior Research Scientist at KAUST from 2010 and 2015. She was appointed Instructor in 2015 then Lecturer in 2017. In recognition of her dedication and teaching performance, Samah Gadhoun was nominated for the Distinguished Teaching Award from BESE.

Samah Gadhoun

Promoted to the rank of
Instructional Associate Professor
BESE



Mo Li

**Promoted to the rank of Associate Professor
Bioscience**

Mo Li earned his PhD in Cellular Biology from The University of Georgia in the US in 2007. Before joining KAUST, he worked as a postdoc and then research scientist for six years in The Salk Institute for Biological Studies, La Jolla, CA, USA. He leads the Stem Cell and Regeneration Lab at KAUST. His team conducting research to understand the molecular basis of the regenerative mechanisms that maintain the proper form and function of the human body. His research programs build on a multidisciplinary platform that integrates stem cell models with genome engineering, functional genomics, bioengineering and chemical screening to gain a holistic understanding of regeneration in its broadest sense, while keeping a commitment to fulfilling the translational promise of stem cell research.

His research has been published in prestigious journals in biomedical research including New England Journal of Medicine, Nature Communications, and Genome Biology. He was an active member of KAUST Rapid Research Response Team (R3T). Mo Li has developed two diagnosis tools for SARS-CoV-2. One of the tools he has developed has been covered by international media, including New York Times, clearly demonstrating the major impact of his new method in the fight against the virus.



Magdy Mahfouz

Promoted to the rank of Professor Bioengineering

Magdy Mahfouz earned his PhD degree in Molecular Genetics from the Ohio State University, USA in 2004. His research focuses on developing genome-engineering technologies for basic biology and biotechnology. His work aims to develop molecular scissors or gene editors to improve agricultural production to bring a second green revolution and help reshape the future of agriculture. Under his supervision, his group has made substantial contribution in the area of genome editing that made KAUST recognized in this area of research and his lab has been listed among the top 50 labs in the world in the CRISPR field. Magdy has made significant contributions to establishing the Bioengineering Program, particularly the Synthetic Biology track.

He has taught several courses such as synthetic biology, synthetic biology and biotechnology, and advanced molecular genetics courses in the Bioengineering, Bioscience, and Plant Science. When the COVID-19 pandemic arrived, Magdy joint forces with the KAUST COVID-19 Rapid Research Response Team (R3T) and reinvented himself by establishing a robust program in molecular diagnostics. He harnessed several molecular machineries to build nucleic acid-based diagnostic technologies and developed the Vigilant, Bioscan, iSCAN, and Optima-Dx modules for detecting SARS-CoV-2.



Michael Florian Mette earned his PhD in Max–Planck–Institute of Biochemistry, Martinsried, Germany in 1996. He worked as a Post-Doctoral Fellow from 1997 to 2003 in the Institute of Molecular Biology of the Austrian Academy of Sciences in Salzburg, Austria, and after this was head of a research group at the Leibniz Institute of Plant Genetics and Crop Plant Research in Gatersleben, Germany. He is a solid scientist with main expertise in Genetics, Epigenetics and Biochemistry. At KAUST, he has been teaching since 2016 foundation (100-level) courses, including Basic Chemistry for Life Sciences, Introductory Cell Biology, Introductory Biochemistry, Introductory Microbiology, and Introductory Molecular Biology.

Michael Mette

Promoted to the rank of Instructional Associate Professor
BESE

CEMSE

Computer, Electrical, and
Mathematical Science and
Engineering Division



Gianluca Setti

Dean



Hakan Bagci

**Promoted to the rank of Professor
Electrical and Computer Engineering**

Hakan Bagci earned his PhD in Electrical and Computer Engineering from the University of Illinois at Urbana-Champaign in 2007. He joined KAUST as an Assistant Professor in 2009. He is one of the founding faculty members of KAUST. His research group at KAUST works on various aspects of computational electromagnetics with an emphasis on time-domain integral equations and their fast marching-on-in-time-based solutions, well-conditioned integral-equation formulations, and development of fast hybrid methods for analyzing statistical electromagnetic compatibility and electromagnetic interference phenomena on complex and fully loaded platforms.

He is a senior member of IEEE (Institute of Electrical and Electronics Engineers) and URSI (International Union of Radio Science) and a fellow of ACES (Applied Computational Electromagnetics Society). Hakan is an Associate Editor for IEEE Transactions on Antennas and Propagation, IEEE Journal on Multiscale and Multiphysics Computational Techniques, and IEEE Antennas and Propagation Magazine.



Bernard Ghanem

**Promoted to the rank of Professor
Electrical and Computer Engineering**

Bernard Ghanem is currently a Professor of ECE and CS, a theme leader at the Visual Computing Center (VCC), and the Deputy Director of the AI Initiative at King Abdullah University of Science and Technology (KAUST) in Thuwal, Saudi Arabia. His research interests lie in computer vision and machine learning with emphasis on topics in video understanding, 3D recognition, and theoretical foundations of deep learning. He received his Bachelor's degree from the American University of Beirut (AUB) in 2005 and his MS/PhD from the University of Illinois at Urbana-Champaign (UIUC) in 2010. He has been at KAUST for more than decade, where he established his entire academic career post-graduation.

His work has received several awards and honors, including six Best Paper Awards for workshops in CVPR/ECCV/ICCV, a Google Faculty Research Award in 2015 (1st in MENA for Machine Perception), and a Abdul Hameed Shoman Arab Researcher Award for Big Data and Machine Learning in 2020. He has co-authored more than 150 papers in his field. He serves as an Associate Editor for IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), the highest impact journal in Computer Science, and has served as Area Chair (AC) for the main computer vision and AI/ML conferences including CVPR, ICCV, ECCV, NeurIPS, ICLR, and AAAI.



Raphael Huser earned his PhD in Statistics from the École Polytechnique Fédérale de Lausanne (EPFL) in 2014. He joined KAUST as a postdoctoral associate in 2014 and was subsequently appointed Assistant Professor in 2015. He is leading the Extreme Statistics Research Group where they have developed novel statistical methodology and machine learning methods to better understand and predict high-impact events in a wide range of applications ranging from climate and earth sciences, (crypto-)finance, and neuroscience. Raphael's work has been published in several prestigious journals including but not limited to: the Journal of the American Statistical Association, the Annals of Applied Statistics, the Journal of the Royal Statistical Society: Series B, Biometrika, Extremes, and the Journal of Computational and Graphical Statistics.

Raphael Huser

Promoted to the rank of Associate Professor
Statistics



David Ketcheson

**Promoted to the rank of Professor
Applied Mathematics and Computational Science**

David Ketcheson earned his PhD degree in Applied Mathematics from the University of Washington in 2009. He is a founding member of the faculty at KAUST. He is an advocate of reproducible computational science and of responsible scientific publishing practices and helped to design KAUST's open access policy. David is a numerical analyst and computational scientist, who is interested in time-dependent nonlinear wave phenomena. His research focuses on the design, analysis, and implementation of numerical methods for ordinary and partial differential equations, as well as application of those numerical methods to the mathematics of nonlinear wave propagation. He recently made important contributions in the development of structure-preserving numerical methods, modelling of water waves, and numerical schemes for hyperbolic conservation laws.

He is the author of two books, as well as articles published in leading journals including the Journal of Fluid Mechanics, Journal of Scientific Computing, Numerische Mathematik, SIAM Journal on Scientific Computing, and SIAM Journal on Numerical Analysis.



Matteo Parsani

**Promoted to the rank of Associate Professor
Applied Mathematics and Computer Science**

Matteo Parsani earned his Ph.D. in Mechanical Engineering from the Free University of Brussels in 2010. He held a postdoctoral associate position at KAUST from 2010-2012 and a postdoctoral fellow position at NASA Langley from 2013-2016. He is the principal investigator of the Advanced Algorithms and Simulations Laboratory and a core member of the Extreme Computing Research Center. His research focuses on developing self-adaptive, nonlinearly stable algorithms for complex compressible turbulent flows, advection-reaction-diffusion systems, and aeroacoustics, designing and deploying efficient simulation codes with innovative algorithms on large-scale platforms for massively parallel aerodynamic and biomedical flow simulations.

One of Matteo's main goals is to develop efficient predictive computational fluid dynamic technologies for fully automated optimizing engineering designs that improve energy efficiency and reduce environmental impacts. Matteo leads the development of the KAUST in-house SSDC solver, licensed to the McLaren F1 Team and Boeing, which Airbus and NASA also use for transonic and supersonic fluid flow simulations. SSDC is also the workhorse framework for large-scale projects with Philips Ultrasound for high-intensity-focused ultrasound in medical applications.



Malek Smaoui

Promoted to the rank of
Instructional Associate Professor
CEMSE

Malek Smaoui earned her Ph.D. degree in Computer Science from the University of Houston in 2011. Her research was focused on nature-inspired optimization algorithms, volunteer computing, and high-performance computing. Malek joined the Computer Science program at KAUST since 2012. Since then, her interests have shifted towards enriching and enhancing the students' learning experience at the graduate level. During her 10-years journey at KAUST, Malek has been teaching fundamental Computer Science topics to new students in the program, and to even more students from the other programs and divisions. She taught a wide variety of topics including Programming Methodologies and Abstractions, Introduction to Programming with Python, Data structure and Algorithms, Theory of Computer Science, Systems programming, Parallel Programming Paradigms and High Performance Computing and Architecture.



Atif Shamim

**Promoted to the rank of Professor
Electrical and Computer Engineering**

Atif Shamim – received his PhD degree in electrical engineering from Carleton University, Canada in 2009. He is currently a Professor and principal investigator of IMPACT Lab. His research work has won several best paper awards in many prestigious conferences such as IEEE IMS, IEEE EuMC, etc. He has been selected as the Distinguished Lecturer for IEEE AP-S (2022-2024). He has won the King's Prize for the best innovation of the year (2018) for his work on sensors for the oil industry. His students have won prestigious international competitions, the latest being IEEE IMS 2019 3MT and IEEE AP-S Design Competition 2022. He is an author/co-author of around 300 international publications, an inventor on more than 40 patents and has given close to 100 invited talks at various international forums.

Two startup companies have come out of his Lab, one of them (Saher Flows) has already installed sensors in Aramco oil fields. His research interests are in high frequency System-on-Chip, System-on-Package, and wireless sensing systems through additive manufacturing technologies. He has served as the editor or guest editor for several journals such as IEEE TAP, IEEE AWPL, and IEEE JERM. He serves on numerous IEEE committees such as IEEE Technical committees on Antenna Measurements (AP-S), Microwave Controls (MTT-S 13), and Additive Manufacturing (CRFID).

PSE

Physical Science
and Engineering Division



Gilles Lubineau

Dean



Stefaan De Wolf received his Ph.D. degree in Electrical Engineering from the Katholieke Universiteit Leuven, Belgium, in 2005. Stefaan's expertise lies in the science and technology of photovoltaics for terrestrial applications. His research focuses on the fabrication of high-efficiency silicon-based solar cells, with specific attention to the fundamental understanding of interface structures and electrical contact formation, relevant to solar cells and electronic devices. He held several administrative positions at KAUST including Program Chair of the Material Science and Engineering program, and the Interim Associate Director of the Solar Center. He published about 200 articles in journals including Science and Nature Energy, and was recognized as a highly cited researcher by Clarivate for the past four years.

Stefaan De Wolf

Promoted to the rank of Professor
Material Science and Engineering



Aamir Farooq

Promoted to the rank of Professor
Mechanical Engineering

Aamir Farooq received his Ph.D. degree in Mechanical Engineering from Stanford University, USA, in 2010. His research focuses on energy sciences, chemical kinetics, spectroscopy, and laser-based sensors. He leads the Chemical Kinetics and Laser Sensors Laboratory and is affiliated with the Clean Combustion Research Center. He has authored nearly 200 refereed journal articles and has given invited talks at several international conferences. In 2019, he won the Early Career Research Award given by Elsevier and Combustion Institute. In 2020, he received the Research Excellence Award of the Combustion Institute. At KAUST, he won the Distinguished Teaching Award in 2019. His excellent research contribution has led to many successful connections and grants with industrial organizations.



Omar Mohammed

**Promoted to the rank of Professor
Material Science and Engineering**

Omar F. Mohammed received the Ph.D. degree in 2006 in Physical and Theoretical Chemistry from Humboldt University of Berlin, Germany. The research activities of Dr. Mohammed is focused on the development of highly efficient solar cells, light-emitting diodes and X-ray imaging scintillators with the aid of ultrafast laser spectroscopy, 4D electron imaging and computational materials. Dr. Mohammed has established himself not only as a world-leader in 4D electron microscopy, but also as an internationally recognized scientist in the field of surface and interfacial charge carrier dynamics in solar and X-ray scintillation materials.

He has pioneered the development of surface and interface characterization techniques that have opened new avenues for the materials and optoelectronic communities. He published over 280 papers in a very high impact factor journals including Science, Nature, Nature Energy, Nature Photonics and Nature Materials; and he was recognized as a highly cited researcher by Clarivate for the past three years.



Mani Sarathy

Promoted to the rank of Professor
Chemical Engineering

Mani Sarathy received his PhD degree in Chemical Engineering in 2010 from the University of Toronto, Canada. Mani's research focuses on developing sustainable energy technologies with decreased net environmental impact. A major thrust of his research is simulating the combustion chemistry of transportation fuels. The goal of Mani's research is to study conventional and alternative fuels (e.g., biofuels, synthetic fuels). Since 2020, he has also been the Senior Manager for Technology and Innovation at ENOWA NEOM Hydrogen and Green Fuels. His KAUST research group has developed several models in chemical kinetics that are being recognized and used by other researchers and industry engineers. His research contributions have resulted in more than 250 articles that are published in well reputable journals such as Chemical Engineering Journal, Fuels, and Combustion and Flame.

