**Eye on Research**

**NMSU engineering professors rank among top 2% in their research fields worldwide**

February 16, 2021

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Engineering professors from New Mexico State University have earned the distinction of being among the top 2% of scientists worldwide as measured by the impact of their research publications. The engineering authors were identified in a worldwide database of top scientists created by Stanford University and recently published in the journal *Public Library of Science Biology*.

“Our faculty are at the forefront of several key research areas in engineering. They are among the best of our peers in terms of research productivity. The number of publications per faculty and number of citations, place our researchers very competitively among our peers,” said Lakshmi N. Reddi, dean of the College of Engineering.

John P.A. Ioannidis, professor at Stanford University, led the creation of the database which ranks the most cited authors across all scientific disciplines. The publicly available database classifies the publications in 22 scientific fields with 176 subfields.

The study lists the top 100,000 scientists in all fields. The data also include scientists who are not in the top 100,000 of all research disciplines, but are within the top 2% of scientists of their main subfield discipline, assessing career-long citation impact up until the end of 2019 and for citation impact during the single calendar year 2019.

Earning a place among the world’s top 2% scientists ranked in their specific research subfields over their entire career as well as for the year 2019 are the following NMSU engineering professors.

Associate Professor Abdessattar Abdelkefi, Department of Mechanical and Aerospace Engineering: aerospace and aeronautics

Abdelkefi was the top grant awardee in the mechanical engineering department for the past fiscal year, garnering $634,482 through 11 multidisciplinary projects. He leads the Nonlinear Dynamics and Energy Harvesting Laboratory conducting research on multidisciplinary projects such as environmental testing, nonlinear dynamics, uncertainty quantification, and characterization of dynamical systems including pipeline conveying fluids, energy harvesters, wind turbines, drones and nano-systems.

Professor Igor Sevostianov, Department of Mechanical and Aerospace Engineering: mechanical engineering and transports

Sevostianov’s research interests are in the quantitative characterization of microstructures of non-homogeneous materials, microstructure-properties relationships, and connections between different physical properties. His research has important implications in additive manufacturing, radiation damage control, development of new materials for bone implants, etc.

Sevostianov is currently Director of NMSU RISE to the Post-doctorate Program funded by the National Institutes of Health for $3.3 million (2018-2022), PI in four grants funded by NASA, NSF, and USDA (with total amount of more than $1.5 million of extramural funding) and co-PI in several other projects.

Professor Jaime Ramirez-Angulo, Department of Electrical and Computer Engineering: electrical and electronic engineering

Professor Nagamany Nirmalakhandan, Department of Civil Engineering: biotechnology

Nirmalakhandan was co-investigator of a multi-disciplinary team leading the National Science Foundation Engineering Research Center for Re-inventing the Nation’s Urban Water Infrastructure. Beginning in 2011, NSF funded the $18.5 million in the center over five years. Nirmalakhandan continues to receive funding for under this program.

Department Head Jay I. Frankel, Department of Mechanical and Aerospace Engineering: mechanical engineering and transports. Frankel joined the NMSU College of Engineering in February 2020 from the University of Tennessee, Knoxville.

Other engineering professors who ranked among the top 2% for citations in their specific subfields during the year 2019 follow.

Professor Pei Xu, Department of Civil Engineering: environmental engineering

Xu was awarded $950,612 in funding for her water research during the past fiscal leading NMSU’s efforts on the National Alliance for Water Innovation team that received a U.S. Department of Energy five-year, $100 million grant to create the Energy-Water Desalination Hub.

Associate Professor Tom Manz, Department of Chemical and Materials Engineering: environmental engineering

## Manz received an NSF Career Award in 2016. He leads a group focused on the creation of new computational methods to expand modeling capabilities of physical and chemical interactions that could be used in a variety of applications.

Professor Zohrab Samani, Department of Civil Engineering: environmental engineering

Samani has more than 40 years of experience in teaching and research of remote sensing, water management, irrigation systems design, groundwater hydrology and international technology transfer. He has worked in 18 difference countries promoting water management technologies.

Professor David Voelz, Department of Electrical and Computer Engineering: optoelectronics and photonics

Voelz leads interdisciplinary research with the Astronomy Department at the Electro-Optical Research Laboratory within the Klipsch School of Electrical and Computer Engineering. The specialized courses he teaches include optical sources and detectors, lasers, Fourier methods in electro-optics, and electro-optical system design.

The Stanford University study published in the journal *Public Library of Science Biology* (PLoS) can be found at <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918>. all tables and information can be accessed at <https://data.mendeley.com/datasets/btchxktzyw/2>.

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