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Note: Images available at: <https://nyutandon.photoshelter.com/galleries/C0000d38y2d7dzak/G0000lLqbnNTmKdQ/Nikhil-Gupta>

Immediate Release

NYU Tandon expert on novel materials and 3D-printing security tapped for prestigious industry honor

BROOKLYN, New York, Wednesday, March 30, 2022 – The Board of Trustees of [ASM International](#), (formerly the American Society for Metals), has elected [Nikhil Gupta](#), professor of Mechanical and Aerospace Engineering a Fellow of the Society. ASM, a global organization with over 20,000 members, bestows [Society Fellowships](#), which it established in 1969, upon those whom it recognizes as having made significant contributions in the field of materials science and engineering.

Gupta, who is also affiliated with the Department of Civil and Urban Engineering, and the [NYU Center for Cybersecurity](#), received the honor — among the highest in materials engineering — for his pioneering contributions to the science and technology of lightweight polymer and metal matrix composites. He is also recognized for exceptional dedication to the education of public for scientific discoveries. As a Fellow, Gupta becomes a member of a broadly based forum for technical and professional leaders to serve as advisors to the Society. In 2021, ASM elected 20 researchers and experts in the field to be Fellows.

With a range of research foci, including sustainable manufacture of composite materials, developing new security methods for 3D printing, and using machine learning methods for materials characterization, Gupta has presented over 100 keynote and invited lectures and authored 23 book chapters and over 200 journal articles. He has also written or edited several books and is an inventor on 7 issued US patents.

Among awards and honors Gupta has received are the 2020 Minerals, Metals and Materials Society (TMS) Brimacombe Medalist Award, the ASM International Silver Medal, the Minerals Metals and

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Materials, the TMS Young Leader Professional Development Award, and Visiting Lectureship Award from the ASM-Indian Institute of Metals.

His research interests, educational initiatives and innovations traverse a wide landscape, including:

- Coordinating an NSF-funded joint U.S. and India [project](#) that gave a select group of undergraduate students in both countries a chance to find security flaws in the additive manufacturing supply chain, allowing students to think the way hackers think
- Revealing how machine learning tools can [reverse engineer](#) printing orientation to discover the makeup of proprietary materials
- Developing a method that hides [secret codes](#) as 3D features in printed parts, but only when printed by a trusted facility, verifying the part's provenance
- With a three-year NSF grant, co-developing a 3D printing cybersecurity [curriculum](#) at NYU Tandon
- With support of the United States Agency for International Development (USAID), exploring how lithium-ion batteries can become a [sustainable resource](#)

“Nikhil's election to the elite ranks of ASM Fellows, besides being a well-deserved acknowledgement of his scholarship, innovations and mentorship of students, speaks to the energetic scholarship and leadership of all of our faculty in all of our areas of excellence,” said NYU Tandon Dean Jelena Kovačević.

Gupta served as the Chair of the Composites Materials Committee of TMS (2016-2018) and Membership Secretary of American Society for Composites. Currently he is serving on the editorial board of [Materials Science and Engineering A](#), [Advanced Composites and Hybrid Materials](#) and the [Journal of Materials Processing and Characterization](#).

Gupta will accept the ASM Fellow Award at [IMAT'22](#) in New Orleans, Louisiana, September 12-16, 2022.

About the New York University Tandon School of Engineering

The NYU Tandon School of Engineering dates to 1854, the founding date for both the New York University School of Civil Engineering and Architecture and the Brooklyn Collegiate and Polytechnic Institute. A January 2014 merger created a comprehensive school of education and research in engineering and applied sciences as part of a global university, with close connections to engineering programs at NYU Abu Dhabi and NYU Shanghai. NYU Tandon is rooted in a vibrant tradition of entrepreneurship, intellectual curiosity, and innovative solutions to humanity's most pressing global challenges. Research at Tandon focuses on vital intersections between communications/IT, cybersecurity, and data science/AI/robotics systems and tools and critical areas of society that they influence, including emerging media, health, sustainability, and urban living. We believe diversity is integral to excellence, and are creating a vibrant, inclusive, and equitable environment for all of our students, faculty and staff. For more information, visit engineering.nyu.edu.

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