

Additive Manufacturing: State of the Art and Trends



5 MetroTech Center, Room: LC433
NYU Tandon School of Engineering



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Date: October 12, 2018 Time: 2-4:30 pm

2:00-2:05	Welcome Remarks	Dr. Nikhil Gupta
2:05-2:50	1. Additive manufacturing fundamentals	Fei Chen
	a. An overview of various technologies	
	b. Why additive manufacturing is needed in industry	
	c. Examples of AM in various industries – aerospace, automotive, medical and consumer goods	
	d. Challenges for the future	
2:50-3:00	Coffee Break	
3:00-3:45	2. Additive manufacturing of metallic materials	Dr. Rakesh Behera
	a. An overview of metallic AM technologies	
	b. Feed material manufacturing and measurements	
	c. Microstructure, properties and defects	
	d. Quality assessment methods and challenges	
3:45-3:55	Discussion	
4:00-4:30	Makerspace Tour	Victoria Bill

Speaker Bio



Fei Chen is currently a Ph.D. candidate in the Mechanical and Aerospace Engineering Department at the New York University Tandon School of Engineering. She graduated with *summa cum laude* and received B.S. degree in mechanical engineering from New York University and Beijing Jiaotong University in 2015 (dual degree program). Her doctoral research under Prof. Nikhil Gupta's supervision focuses on cybersecurity in additive manufacturing (3D printing), where she has developed design based security strategies and product authentication methods. Her work has resulted in several journal publications and conference papers. Her work has been reported in media coverage on TV shows, news websites and scientific journal news sections.



Dr. Rakesh Kumar Behera is an Industry Assistant Professor of Mechanical and Aerospace Engineering at the New York University Tandon School of Engineering. Dr. Behera has received MS and PhD in Materials Science and Engineering from the University of Florida, MS in Mechanical Engineering from the Louisiana State University, and an undergraduate degree in Metallurgical Engineering from National Institute of Technology in India. Dr. Behera has previously worked in the Nuclear Engineering Program and in the School of Chemistry and Biochemistry at the Georgia Institute of Technology. Dr. Behera has published over 20 peer-reviewed articles. Dr. Behera's research currently focuses on composites, 3D printing, and Archaeometallurgy. Dr. Behera teaches a graduate level course on Additive Manufacturing of Metallic Materials.
