

NJAMI Machines, Facilities, and Cyberinfrastructure**Manufacturing Tools**

Category	Machine	Process	Point of Contact
Additive Mfg.	Stratasys FDM 170 Printer	Fused deposition modeling (FDM)	Guo yuebin.guo@rutgers.edu
	Objet Connex350	PolyJet 3D printing	Guo yuebin.guo@rutgers.edu
	Aconity3D	Selective laser melting (SLM)	Guo yuebin.guo@rutgers.edu
	MiniLabo R2R Printer	Digital patterning by DLP imaging	Singer jonathan.singer@rutgers.edu
	EKRA Screen Printer	Electronic printing	Mazzeo aaron.mazzeo@rutgers.edu
Subtractive Mfg.	Microlution 5-Axis CNC	Vertical milling	Guo yuebin.guo@rutgers.edu
	Sodick VL400 Q Wire-EDM	Wire electrical discharge machining (EDM)	Guo yuebin.guo@rutgers.edu
Industrial Robot	Yaskawa HP20D-A80	Robotic motion and control	Zou qzzou@rutgers.edu

Metrology Equipment

Equipment	Features	Point of Contact
Optical Microscopes	<ul style="list-style-type: none"> •Low magnification of surface images •Various engineering materials 	Singer jonathan.singer@rutgers.edu
Keyence VR-5000	<ul style="list-style-type: none"> •Form accuracy •Surface accuracy 	Grace Guo wg152@soe.rutgers.edu
ZEISS LSM 900	<ul style="list-style-type: none"> •High-resolution surface and material analysis •High-speed imaging •Various engineering materials 	Guo yuebin.guo@rutgers.edu
GE XCT Phoenix Microme	3D non-destructive imaging	Guo yuebin.guo@rutgers.edu

Mechanical Testing Equipment

Equipment	Functions	Point of Contact
Instron 4411 System	<ul style="list-style-type: none"> •Static mechanical behavior •Low-cycle dynamic behavior (e.g., fatigue) •Various engineering materials 	Pelegri pelegri@rutgers.edu
SHPB Facility	<ul style="list-style-type: none"> •Dynamic compression/tension/shearing •Strain rates (100-10,000/s) •Super hard and soft materials 	Pelegri pelegri@rutgers.edu
Vantage NanoTest System	<ul style="list-style-type: none"> •Nanohardness and modulus •Nanoimpact, fracture toughness •Wear and scratching •Environmental testing (wet cell, heat 500°C, humidity chamber) 	Pelegri pelegri@rutgers.edu
Fatigue Testing System	<ul style="list-style-type: none"> •High-cycle fatigue (up to 275 Hz) •Bending or torsion loading 	Guo yuebin.guo@rutgers.edu
Dynamic analyzer DMA 850	<ul style="list-style-type: none"> •Viscoelastic behavior of polymers 	Singer jonathan.singer@rutgers.edu
Vibration Test Rig	<ul style="list-style-type: none"> •Vibration testing up to 5000 Hz 	Pelegri pelegri@rutgers.edu

Microscopy Preparation Equipment

Equipment	Features	Point of Contact
Buehler SimpliVac Vacuum System	<ul style="list-style-type: none"> •Microscopy epoxy 	Guo yuebin.guo@rutgers.edu
LECO Grinder/Polisher PX300	<ul style="list-style-type: none"> •Grinding/polishing 	Guo yuebin.guo@rutgers.edu

Cyberinfrastructure

Sensing & Edge	Features	Point of Contact
5G COSMOS Network	<ul style="list-style-type: none"> •Next generation wireless communication 	Guo yuebin.guo@rutgers.edu
Lambda RTX A6000	<ul style="list-style-type: none"> •High-performance computing 	Guo yuebin.guo@rutgers.edu