

2021 DANA KNOX STUDENT RESEARCH SHOWCASE
PRESENTATION RECORDING LINKS

Session Time	Project Title	Student Name (First/Last)	Presentation Recording Link
9-9:30am	Measuring Entropy in Sleep EEG to Examine Complexity and Level of Biological Activity in Different Sleep Stages	Edgar Canario (1a)	https://njit.webex.com/njit/lsr.php?RCID=28f82a0d65a64aa5aee4588d710f8928
	Charge transport in 2D layered metal-organic frameworks, Correlating flexibility and Conductivity	Zeyu Zhang (1b)	https://njit.webex.com/njit/lsr.php?RCID=2ae4ce248d3b4ab0931ef5fb7977a6d9
9:30-10am	Microwave Catalysis-Enabled Membrane Processes for Simultaneous Pollutant Degradation and Microbial Inactivation	Fangzhou Liu (2a)	https://njit.webex.com/recordingservice/sites/njit/recording/c214fa372abb4f53aa8f2a16d66380ce/playback
	Degeneracy in oscillatory systems and their consequence for network dynamics	Guillermo Villanueva (2b)	https://njit.webex.com/njit/lsr.php?RCID=7901db57531a4b2abfa89a236efa5203
10-10:30am	Closing the Loop: Data Analytics for the Crisis of Plastic	Nesreen El-Rayes (3a)	https://njit.webex.com/njit/lsr.php?RCID=84c80b795bc14f17adde6a230a772ff4
	Heart-rate tuned comb filters for processing photoplethysmogram (PPG) signals in pulse oximetry	Ludvik Alkhoury (3b)	https://njit.webex.com/njit/lsr.php?RCID=0ddf0ade0987a54816355455d87c80bd
	Using Creo to Model Complex Mechanisms: Sarrus Mechanism Linkage	Brian Trivinos (3c)	https://njit.webex.com/njit/lsr.php?RCID=07a44f53da20420293302ba7b56ec39b
10:30-11am	Parameter Estimation and Inference of Spatial Autoregressive Model by Stochastic Gradient Descent	Gan Luan (4a)	https://njit.webex.com/njit/lsr.php?RCID=d8bb45f5c649439a8b1ebdb9a831723a
	Modeling of Colloid-Polymer Mixtures in Microgravity	Lauren Barnes (4b)	https://njit.webex.com/njit/lsr.php?RCID=c2a666e9b11f409087ce1fccc22676c2
	From Ugly Duckling to Swan: CVC, Open Innovation, and the Advent of Unicorn Ventures	Xi Zhang (4c)	https://njit.webex.com/njit/lsr.php?RCID=0d3f9ff9a295494b93130bb1d87f0f4f

11-11:30am	Larval zebrafish exhibit collective motion behaviors in constrained spaces'	Haider Zaki (5a)	https://njit.webex.com/njit/lsr.php?RCID=1fc361dde16749e293f183bb9eff07ad
	User Opinions of Effective Strategies Against Social Media Toxicity	Aashka Patel (5b)	https://njit.webex.com/njit/lsr.php?RCID=ebdd11c0918b492ea75bce9a60b7e2ce
	Electronic Synapse Device for Neuromorphic Computation	Kelvin Azcatl (5c)	https://njit.webex.com/njit/lsr.php?RCID=f54bd1e588b14cf5a1ef58fa3310e0cb
11:30-12pm	Self-Assembling Peptides to Mitigate Familial Hypercholesterolemia	Sreya Sanyal (6a)	https://njit.webex.com/njit/lsr.php?RCID=176259584c7c4dfaa7cbfe7045219c65
	Single atom Pt Doping and Facet Dependent Photocatalytic Activity of La ₂ Ti ₂ O ₇ : A DFT study	Qingquan Ma (6b)	https://njit.webex.com/njit/lsr.php?RCID=0d1e2d2913524fe2a48e8ecaa575a19a
12-12:30pm	Using FE Modeling to Infer Bone Health After SCI	Tyler Rodriguez (7a)	https://njit.webex.com/njit/lsr.php?RCID=5a2610f4e2e84edd848042bda12c3d75
	Optimal Transport on the Sphere	Axel Turnquist (7b)	https://njit.webex.com/njit/lsr.php?RCID=a3e8135e11ca41aca86b9b7a89f1a7f8
12:30-1pm	Molecular Augmented Reality for Design and Engineering (MADE): Effectiveness of AR Models on Discovery, Learning, and Education	Nisha Mistry (8a)	https://njit.webex.com/njit/lsr.php?RCID=eb204f03b36a4c64ab49bece8fbb07e3
	Population Modeling of Open-Circuit Continuous Milling Processes Using a Cell-Based Approach	Nontawat Muanpaopong (8b)	https://njit.webex.com/njit/lsr.php?RCID=5771480bf601431a851ee88c59e78df1
	Inflammatory Response Between M2 Macrophages and Myofibroblasts in Infarcted Cardiomyocytes	Tatiana Excellent (8c)	https://njit.webex.com/njit/lsr.php?RCID=da1843a471a34e668468dba752c2edd
1-1:30pm	A Data-Driven Stochastic Programming Epidemic Modeling Framework to Controlling the COVID-19	Xuecheng Yin (9a)	https://njit.webex.com/njit/lsr.php?RCID=a516e77ad5a54fde8c66466635b5b71c
1:30-2pm	Interactive and Scalable Layout Synthesis with Design Templates	Hameedullah Farooki (10a)	https://njit.webex.com/njit/lsr.php?RCID=310c1e9c9ac04c15a62d68717629c11e

2-2:30pm	Algorithm for Soot Aggregate Restructuring	Divjyot Singh (11a)	https://njit.webex.com/njit/lsr.php?RCID=9c5c582e5f9a413592019c48b7259c7c
	On Machine Learning-based Resource Provisioning and Performance Optimization for Big Data Computing and Networking	Wuji Liu (11b)	https://njit.webex.com/njit/lsr.php?RCID=bf74df4f1fc147fca4287c158636da88
2:30-3pm	Drone-Assisted Mobile Networking	Jehan Shalabi (12a)	https://njit.webex.com/njit/lsr.php?RCID=f41a8e90504d4e9b867c66bc658e901a
	Mental Health in Twitch Gaming Streams	Reesha Gandhi, Nina LaMastra, and Jira Uttarapong (12b)	https://njit.webex.com/njit/lsr.php?RCID=41fcd34d75f04bc981595e5d4f45846c
3-3:30pm	Forecasting coronal mass ejection arrival time using deep learning model	Khalid Alobaid (13a)	https://njit.webex.com/njit/lsr.php?RCID=299b3f54eb4b4bb2b93926cebae8f4b9
	Application of computational topology to analysis of granular material force networks in the stick-slip regime.	Rituparna Basak (13b)	https://njit.webex.com/njit/lsr.php?RCID=7bf57454aabd46d9b627ba4eca2eab95
3:30-4pm	Use of Bead Mixtures as a Novel Process Optimization Approach to Nanomilling of Drug Suspensions	Gulenay Guner (14a)	https://njit.webex.com/njit/lsr.php?RCID=e8b73d3946f342529f11a0d3d2777fe5
	Bacterial motion and spread in porous media	Yasser Almoteri (14b)	https://njit.webex.com/njit/lsr.php?RCID=d04285acc3d74c2e935ea78f54af913c
4-4:30pm	Quantifying the Morphological Similarity between Social Parasites and their Hosts	Nitya Shah (15a)	https://njit.webex.com/njit/lsr.php?RCID=79984af813e74b038c62109cf35d3f1d
	Recovery of Lithium and Cobalt from Spent Lithium-Ion Batteries Using Organic Aqua Regia (OAR): Assessment of Leaching Kinetics and Global Warming Potentials	Alexander Guillen (15b)	https://njit.webex.com/njit/lsr.php?RCID=c54eef8ebaee467791d5ba13ab9f34f2
	Ettringite Energy Storage	George Ulerio II (15c)	https://njit.webex.com/njit/lsr.php?RCID=4a26bc7aa54742d1bf21e053f2f469e2