

INTRODUCTION MESSAGE FROM THE DEAN

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INTRODUCTION

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2020-2021

I am excited to share with you our 2020-2021 Annual Report, which highlights the accomplishments and progress of the Charles V. Schaefer, Jr. School of Engineering and Science over the past academic year.

This year's Annual Report features exciting new achievements for AY 20-21, including a record 347 Ph.D. students enrolled. We launched a cutting-edge master's program in quantum engineering that is an up-and-coming area of great importance. The new undergraduate engineering curriculum was fully approved to allow for an even more flexible curriculum and was launched this fall.

Our research enterprise continues to grow with a consecutive record year of research awards, earning \$34.4 Million for the 2020-2021 academic year and setting a new record in our research expenditures. Our school also welcomed 10 new faculty members who bring with them exciting new research and an enthusiasm for Stevens' spirit of interdisciplinary collaboration, and four of our current faculty were honored with Young Investigator Awards from the National Science Foundation and the Defense Advanced Research Projects Agency.

The COVID-19 pandemic continues to force our faculty and staff to adapt our educational environment, from going above and beyond to ensure that students can work in the lab safely to hosting workshops to improve online and hybrid teaching. I am proud of our continued dedication to the student experience.

As I reflect on the success of our school in 2020-2021 and the opportunities for growth, I believe that we will continue to gain momentum by further strengthening our initiatives in core areas like interdisciplinary collaboration, career development opportunities, research, and the student education experience.

In 2020-2021, we established new thresholds for excellence in many areas. Looking ahead, through the continued effort and dedication of our faculty, staff, and students, I am confident that our vision of creating a world-class school of engineering and science will come to fruition.

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Jean Zu, Dean Schaefer School of Engineering and Science



STUDENTS



Enrollment at a Glance AY 20-21

Total Students:



Total Undergraduate Enrollment: **2,763** Total Master's Enrollment: **1,279**

Total Ph.D. Enrollment: 347 -----

Total Graduate Certificate Enrollment: 21 -

Gender Diversity AY 20-21

28[%] of undergraduate students are female (Fall 2020) Fall 2018: 28% Fall 2019: 28%

 $24^{\%}$ of master's students are female, a new record

25[%] of the incoming class of master's students were female (Fall 2020)

3-year trend: Holding steady at 23% Fall 2018: 22% Fall 2019: 23%

28[%] of Ph.D. students

are female (Fall 2020) Fall 2018: 27%

> Fall 2019: 29% 68 of the incoming Ph.D. students in Fall 2020 were female, **a new record**

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Underrepresented Minorities AY 20-21

- 16.3% of undergraduate students are underrepresented minorities
- 4% of master's students are underrepresented minorities
- 0.3% of Ph.D. students are underrepresented minorities





Undergraduate Enrollment by Department Fall 2020

	BME	ССВ	CEMS	CEOE	CS	ECE	ME	MS	РНҮ	UND*	SES (Total)	YOY Growth
2020	233	110	218	188	745	368	600	41	49	211	2763	3.7%
2019	239	96	220	243	611	388	579	38	61	188	2663	4.5%
2018	227	79	233	249	503	402	599	38	52	166	2548	7.5%

*undecided

Master's Enrollment by Department Fall 2020

	BME	ССВ	CEMS	CEOE	CS	ECE	ME	MS	РНҮ	OTHER	SES (Total)	YOY Growth
2020	48	39	38	170	392	247	161	85	15	2	1197	-7.9%
2019	41	33	44	219	451	249	112	44	21	2	1216	-0.3%
2018	40	25	56	250	434	245	127	18	22	3	1220	-11.1%

Ph.D. Enrollment by Department Fall 2020

	BME	ССВ	CEMS	CEOE	CS	ECE	ME	MS	РНҮ	OTHER	SES (Total)	YOY Growth
2020	13	24	31	44	58	44	60	18	40	3	335	.6%
2019	17	29	35	44	49	46	57	18	39	4	333	16.8%
2018	16	28	33	36	30	37	47	19	34	5	285	1.8%

Undergraduate Student Career Outcomes by Major

AY 19-20. Data for AY 20-21 not yet available.

MAJOR	EMPLOYMENT RATE 6 MO. POST GRAD	AVERAGE SALARY
Pielogy	100%	Incufficient Data
Blology	100 %	
Biomedical Engineering	9/%	\$67,000
Chemical Biology	100%	Insufficient Data
Chemical Engineering	93%	\$71,700
Chemistry	100%	Insufficient Data
Civil Engineering	96%	\$67,300
Computer Engineering	98%	\$81,900
Computer Science	94%	\$88,000
Cybersecurity	94%	\$88,000
Electrical Engineering	92%	\$85,750
Engineering Physics / Physics	100%	Insufficient Data
Environmental Engineering	96%	\$67,300
Mechanical Engineering	96%	\$73,000
Naval Engineering	96%	\$67,300
Pure & Applied Mathematics	100%	Insufficient Data







BME Ph.D. student Sean Sanford won first place "Best Poster Award" in Johnson & Johnson's university category poster competition. Additionally, he was honored with the Stevens Excellence Doctoral Fellowship.

BME undergraduate students Faizah Chowdhury and **Jake Fiore** won first place in the 2021 Stevens Innovation Expo's Ansary Entrepreneurship Competition for their project "Hip Tip."

BME undergraduate students Bora Bibe, Cyrus Merchant, Hannah Percely and **Concetta Spector** won second place in the 2021 Stevens Innovation Expo's Ansary Entrepreneurship Competition for their project "TuLip."



BME Ph.D. student Sam Liu was selected as a finalist for the "New Investigator Award" from the International Society of Biomechanics of Sport. As one of eight invited finalists, he will compete at the "Oral Preliminary Finals" at the 2021 conference this fall.

CCB Ph.D. candidate Lucia Wang was selected for the "Very Important Paper" (VIP) status by the reviewers, in *ChemMedChem*, which published her paper titled "The Quest for Orally Available Selective Estrogen Receptor Degraders (SERDs)."

CCB undergraduate student Sophia Makepeace wrote an article titled "Noise-Reducing Insert for NICU Incubator," which was accepted for publication in *The Journal of Biomedical Engineering and Medical Devices*.

CCB undergraduate student Erika McCarthy won three academic awards in from the department, including Academic Excellence in Chemistry, and two American Chemical Society (ACS) awards: ACS Division of Physical Chemistry Undergraduate Award and ACS Division of Inorganic Chemistry Undergraduate Award.

CEOE Ph.D. student Roxana Rahmati received the first prize and a \$1,000 cash award in the student research competition at the 36th Annual International Conference on Soils, Sediments, Water, and Energy.

CEOE Ph.D. student Sameer Neve received a Hugo Neu Corporation Graduate Environmental Sustainability Innovation Scholarship of \$12,000.

CEOE Ph.D. student Roxana Rahmati was awarded the first place poster presentation award at the 36th Annual International Conference on Soils, Sediments, Water, and Energy organized by the Association for Environmental Health and Sciences (AEHS) Foundation for her research "Removal of Lead by Aluminum-Based WTRs Collected from Different Parts of the United States."

STUDENTS

CEOE Ph.D. student Viravid Na Nagara was awarded a \$500 cash prize and second place certificate in the Michael E. Miller Student Competition, held at the 36th Annual International Conference on Soils, Sediments, Water, and Energy, organized by the Association for Environmental Health and Sciences (AEHS) Foundation, for his research "Bioretention System Retrofit to Enhance Stormwater Pollutant Removal Using a Recycled Industrial Waste Coated-Mulch."

CEOE Ph.D. student Viravid Na Nagara wrote an article titled "Greening the Gray Infrastructure: Green Adsorbent Media for Catch Basin Inserts to Remove Stormwater Pollutants," which was published in *Environmental Technology & innovation* in February 2021.

CS undergraduate student Ryan Hartman was nominated for a Webby Award in the law category for Marrone Law, which he built for NextLevel.

CS students Sebastian Churion and **Nisil Patel** won second place for Best Student Poster at the 11th Maritime Risk Symposium for their Maritime Security Center 2020 Summer Research Institute project on maritime cybersecurity.

CS undergraduate students Ben Mirtchouk, Rocco Polimeni and **Marco Polimeni** broke Stevens' previous records with their performance in the International Collegiate Programming Contest (ICPC,) placing eigth in the New York Greater region, 21st in the east division and 46th in the whole continent—among 170 qualifying teams.

ECE undergraduate student Evan M. Binder won Education Track second place in QWER Hacks 2021.

ECE undergraduate students Izy Engel, Regan Tarasewicz and **Hayley Tovey** won third place in the 2021 Stevens Innovation Expo's Ansary Entrepreneurship Competition for their project "Livelog."

ECE undergraduate student Brianna Garland received an Honorable Mention in the the 2021 National Center for Women & Information Technology (NCWIT) Awards for her project "Design of Grail Automated Healthcare Records."

ECE Ph.D. students Ning Wang, Fan Luo and **Yuvraj Shivtare** recently collaborated on a project with colleagues from the UCSD Psychology department, which was accepted as a paper that will be presented at the CL-Psych Workshop of the North American Association for Computational Linguistics.







HIGHLIGHTS CONTINUED

ECE undergraduate students Angelo Cardinale, Daniel Cooke, Sophia DeGregorio, Nicholas Dodd and **Peter Ho** received the 2021 David and GG Farber Societal Impact Award for "Project Mjolnir."

ME Ph.D. student Siwei Chen and Greg Hader—along with **E.H. Yang**, ME Professor, and **Xiaotian Wang**, ME Ph.D. alumnus—issued U.S. patent titled "Location-Specific Growth and Transfer of Single-Crystalline TMD Monolayer Arrays," patent number US 10,889,914. **Hader** also co-chaired the Track 13 Micro and Nano Systems Engineering and Packaging at the 2021 ASME IMECE Virtual Conference, as well as lead two sessions in Computational Studies on MEMS and Nanostructures and a special topic he initiated in 2019 called "Inertial Navigation: MEMS/NEMS to Bio-Inspired."

ME undergraduate student Christine Huang won first place for Best Student Poster at the 11th Maritime Risk Symposium for her MSC 2020 Summer Research Institute project on sulfur emission.

ME Ph.D. student Shichen Fu was awarded a \$200 cash prize for "Best Talk; Symposium EL04: Beyond Graphene 2D Materials—Synthesis, Properties and Device Applications; 2020 MRS Fall Meeting" in the EL04 Beyond Graphene Symposium. Fu also received the Paul Kaplan award by Stevens Institute of Technology during the Ph.D ceremony for his distinguished doctoral work.

ME Ph.D. student Emily R. Triolo received an Honorable Mention from her National Science Foundation GRFP fellowship application for her project "Understanding the Biomechanics of the Corpus Callosum during Head Impacts Through an Ultra-High Field MRI-informed FE Brain Model."

The Stevens NASA Robotic Mining Competition – Lunabotics Team comprised of Louis Cantor, Stephen Forte, Ryan McAliney, Joseph Pelligra, Trent Slutzky, Andrew Underwood and Robert Preston Wilmot, won the L3Harris Senior Capstone project competition and award from a diverse pool of competing STEM institutions.

The ALTAIR - Multi-Robot Search and Rescue System Team, comprised of ECE undergraduate students Jonas Lackey, Matthew Noga and Preston Wilmot, and ME undergraduate students Margaret Carroll, Joi Ishikawa, David Onorevole and Tori Quan, was selected for the L3Harris Senior Capstone Mentorship Program and will receive funding from L3Harris Technologies.

The Drone Deterrence System Team, comprised of ECE undergraduate students Connor DePalma, Ben Casily, Tim Demetriades, Dan Pelis and Thomas Maris, was selected for the L3Harris Senior Capstone Mentorship Program and will receive funding from L3Harris Technologies.

The SRC NASA Lunabotics Team, comprised of ECE undergraduate students Ryan McAliney, Joseph Pelligra and Preston Wilmot, and ME undergraduate students Louis Cantor, Stephen Forte, Trent Slutzky and Andrew Underwood, was selected for the L3Harris Senior Capstone Mentorship Program and will receive funding from L3Harris Technologies.

The Stevens chapter of Tau Beta Pi received the Chapter of Excellence Award this year at the Tau Beta Pi Unvention. They were one of 24 chapters nationwide to receive this distinction.

The Stevens Institute of Technology Society of Physics Students Chapter was selected as a 2019-2020 Distinguished Chapter.







STUDENTS

FACULTY



Faculty Distribution

Department	Faculty
Biomedical Engineering	11
Chemical Engineering & Materials Science	11
Chemistry and Chemical Biology	17
Civil, Environmental, & Ocean Engineering	27
Computer Science	26
Electrical & Computer Engineering	23
Mathematical Sciences	19
Mechanical Engineering	36
Physics	16
Grand Total	186



Current Faculty Makeup



Faculty Growth

	т	тт	NTT	Lecturer	TOTAL
AY 19-20	71	44	56	10	181
AY 20-21	76	50	53	16	195
AY 21-22	76	48	49	13	186





11 NEW HIRES

AY 20-21

Gizem Acar, Assistant Professor, Mechanical Engineering Ph.D.: Michigan State University *Specialization:* Linear and Nonlinear Dynamics and Vibrations with Applications to Noise Influenced Systems

Tegan Brennan, Assistant Professor, Computer Science Ph.D.: University of California, Santa Barbara *Specialization:* Software Engineering, Computer Security, Formal Methods

Jason Corso, Professor / SIAI Director / Viola Ward Brinning & Elbert Calhoun Brinning Endowed Chair, Computer Science Ph.D.: The Johns Hopkins University *Specialization:* Cognitive Systems: Computer Vision, Machine Learning, Robotics

Shima Hajimirza, Assistant Professor, Mechanical Engineering Ph.D.: University of Texas at Austin *Specialization:* Thermal Fluid Sciences, Radiation Heat Transfer, Solar Energy, Energy and Sustainability





continued

11 NEW HIRES continued





Yanghyo Rod Kim, Assistant Professor, Electrical & Computer Engineering Ph.D.: University of California, Los Angeles *Specialization:* Integrated Circuits for RF, Millimeter-wave Applications

Ting Lu, Teaching Assistant Professor, Physics Ph.D.: University of Waterloo, Canada *Specialization:* Observational Astronomy, Astrophysics

Junjian Qi, Assistant Professor, Electrical & Computer Engineering Ph.D.: Tsinghua University, China *Specialization:* Electric Power Systems, Resilience, Stability and Control, Synchrophasors, Cyber-physical System Security

Jason Rabinovitch, Assistant Professor, Mechanical Engineering Ph.D.: California Institute of Technology *Specialization:* Computational and Experimental Fluid Dynamics, Hypersonics, Reacting Flows, Re-entry Heat Shields

Kathrin Smetana, Assistant Professor, Mathematical Sciences Ph.D.: University of Muenster, Germany *Specialization:* Model Order Reduction, Randomized Methods, Domain Decomposition and Multiscale Methods

Marouane Temimi, Associate Professor, Civil, Environmental & Ocean Engineering Ph.D.: University of Quebec, Canada *Specialization:* Hydrology, Hydraulics, Remote Sensing, GIS

Pedro Vilanova-Guerra, Teaching Assistant Professor, Mathematical Sciences Ph.D.: King Abdullah University of Science and Technology, Saudi Arabia *Specialization:* Applied Mathematics, Theoretical Computer Science, Formal Verification, Formal Semantics, Stochastic Modeling, Verification, Numerical Analysis, Probability, Network Analysis, Stochastic Processes

FACULTY

FACULTY

Stevens Employee Recognition Awards

PHY Professor and SES Associate Dean for Graduate Studies, Rainer Martini received a 2020-21 Stevens Employee Recognition Award for "Excellence in All We Do."

ECE Teaching Associate Professor Dov Kruger received a 2020-21 Stevens Employee Recognition Award for "Technology at Our Core."

ECE Professor and Department Chair Min Song received a 2020-21 Stevens Employee Recognition Award for "Through Collaboration, Impact."

CCB Senior Lecturer Faith Kim received a 2020-21 Stevens Employee Recognition Award for "Student Centricity."

ECE Associate Professor Shucheng Yu received a 2020-21 Stevens Employee Recognition Award for "Strengthened Reputation, Increased Prestige."

Young Investigator Awards

2021 National Science Foundation CAREER Award WinnersHang Liu, Department of Electrical & Computer EngineeringWeina Meng, Department of Civil, Environmental, & Ocean EngineeringYue Ning, Department of Computer Science

2021 Defense Advanced Research Projects Agency Young Faculty Award Georgios Portokalidis, Department of Computer Science

Other External Honors & Awards

Hady Salloum (ECE), 2020 Thomas Alva Edison Patent Award Winner

Robert Chang (ME), Appointed to Leadership Advisory Committee (LAC) for the Advanced Regenerative Manufacturing Institute (ARMI)

Chang-Hwan Choi (ME), elected to Advisory Board for the Journal of Colloid and Interface Science









Yi Guo (ECE), appointed Editor-in-Chief of IEEE Robotics and Automation Magazine

Yuping Huang (PHY), Top 50 Nature Communications' physics articles in 2020

Mohammad Ilbeigi (CEOE), named Outstanding Reviewer by the American Society of Civil Engineers (ASCE)

Mehmet Kurt (ME), named to Fortune Magazine's "40 under 40" list in Turkey

Kevin Lu (ECE), appointed to Board of the IEEE Standards Association

K.P. (Suba) Subbalakshmi (ECE), appointed an Associate Editor to the IEEE Transactions on Artificial Intelligence

Antonia Zaferiou (BME), Interdisciplinary Rehabilitation Engineering Research Career Development Award (IREK12)





FACULTY

UNDERGRADUATE

Total Undergraduate Applications: 9,051

Number of Degree Programs Offered AY 20-21

Total Bachelor's Degree Programs: 15

- 8 Engineering Programs
- 5 Math & Science Programs
- 2 Computer Science Programs

Number of Degree Programs Offered by Department AY 20-21

Department	Program
Biomedical Engineering	1 (B.Eng.)
Chemical Engineering & Materials Science	1 (B.Eng.)
Chemistry & Chemical Biology	3 (B.S.)
Civil, Environmental & Ocean Engineering	2 (B.Eng.)
Computer Science	2 (B.S.)
Electrical & Computer Engineering	2 (B.Eng.)
Engineering & Science (other)	1 (B.Eng.)
Mathematical Sciences	1 (B.S.)
Mechanical Engineering	1 (B.Eng.)
Physics	1 (B.S.)



Total Number of Undergraduate Degrees Awarded by Department AY 20-21

Department	Degrees Awarded
Biomedical Engineering	31
Chemical Engineering & Materials Science	60
Chemistry & Chemical Biology	18
Civil, Environmental & Ocean Engineering	41
Computer Science	117
Electrical & Computer Engineering	89
Engineering & Science (Other)	7
Mathematical Sciences	13
Mechanical Engineering	124
Physics	15
Total Degrees Awarded	515

	B.Eng.	B.S.	B.Eng.	B.Eng.	B.S.	B.Eng.	B.Eng.	B.Eng.	B.S.	B.S.			
	BME	ССВ	CEMS	CEOE	CS	ECE	E *	ME	MS	РНҮ	TOTAL	BS	BE
AY 19-20) 31	18	60	41	117	89	7	124	13	15	515	163	352
AY 18-19	9 41	13	59	55	88	115	3	183	5	6	568	115	453
AY 17-18	61	26	61	56	87	77	9	157	2	6	542	130	412

Total Number of Undergraduate Degrees Awarded by Department Over Three Years

E* Computational Science Interdisciplinary program now retired

AY includes both Fall and Spring graduations, e.g. 2018-19 A/Y = Fall 18 + Spring 19.



Retention

	First Time Full Time Freshmen Retention
AY 19-20	90%
AY 18-19 AY 17-18	95%



New Curriculum Design

A new engineering curriculum with a 134-credit graduation requirement kicked off in Fall 2021. Incoming students have a flexible curriculum and consolidated course-blocks. The new curriculum was designed to provide options for minor, study abroad, and early graduation.

New courses in the first-year curriculum include Fundamentals of Design with opportunities for personal and professional development, and programming with algorithmic thinking. The curriculum also features updated mathematics and science options, and closely-coupled design theory and hands-on design labs.

UNDERGRADUATE

GRADUATE EDUCATION

Graduate Rankings

- **#79** engineering school, USNWR 2021
- ***8** in the nation for best Online Graduate Information Technology Programs, USNWR 2021
- **#21** in nation for Best Online Graduate Engineering Programs, USNWR 2021
- ***1** in New Jersey for Best Online Graduate Engineering Programs, USNWR 2021

New Programs

- Quantum Engineering Master of Science Degree
- Mechanical Engineering Master of Science Degree
- Construction Engineering & Management Master of Science Degree
- Dual Degree MBA for:
 - Robotics
 - Construction Engineering & Management
- Graduate Certificates for:
 - Application of Machine Learning to Pharmaceutical Development
 - Chemical Biology
 - Materials Technology for Energy & Sustainability
 - Quantum Computing Graduate Certificate





Number of Programs Offered by Department AY 20-21

Degree	BME	ССВ	CEMS	CEOE	CS	ECE	ME	MS	РНҮ	DEAN	SES (Total)	
Ph.D.	1	2	2	3	2	2	1	1	1	1	16	
Engineer	1	0	1	1	1	2	1	0	0	0	7	
Master	1	3	2	5	4	3	4	4	2	1	29	
TOTAL	3	5	5	9	7	7	6	5	3	2	52	

Number of Degrees Awarded AY 20-21

Degree	BME	ССВ	CEMS	CEOE	CS	ECE	ME	MS	РНҮ	DEAN	SES (Total)
Ph.D.	2	3	3	6	2	6	11	2	0	0	35
Engineer	0	0	0	0	0	0	0	0	0	0	0
Master of Science	8	27	10	26	233	47	26	40	3	1	421
Master of Engineering	12	0	15	96	1	95	78	0	3	0	300
Certificate	1	2	0	18	11	12	21	0	2	0	67
TOTAL	23	32	28	146	247	160	136	42	8	1	823

GRADUATE

Graduate Student Profile

	AY19	AY20	AY21	
Full-Time	81%	80%	79%	
Ph.D.	20%	20%	22%	
Domestic	32%	32%	38%	
Online	2%	3%	9%	
Female new Ph.D.	26%	33%	29%	
Female new Master	22%	23%	27%	



Applications AY 20-21

- Total Master's Applicants: 6,519 (up 23% from previous year)
- Total Ph.D. Applicants: 1,609 (up 17% from previous year)

Master's Applications



New Master's Enrolled



Ph.D. Applications



New Ph.D. Enrolled







Ph.D. Enrollment

2020F

Graduate Student Distribution Across Departments Summer 2021

Master's Enrollment



SCHAEFER SCHOOL OF ENGINEERING & SCIENCE ightarrow 17

RESEARCH HIGHLIGHTS

Top Ten PIs by Research Dollars Awarded FY 20-21



Top Ten PIs by Research Expenditures FY 20-21

PI	DEPARTMENT	EXPENSE TOTAL
Hady Salloum	ECE	\$3,267,039.22
Christos Christodoulatos	CEOE	\$3,214,064.26
Muhammad Hajj	CEOE	\$1,726,566.14
Yuping Huang	PHY	\$1,662,197.95
Susanne Wetzel	CS	\$1,372,293.05
Nicholaus Parziale	ME	\$1,191,037.84
Georgios Portokalidis	CS	\$943,167.12
Eric Koskinen	CS	\$828,366.31
Lei Wu	ECE	\$770,012.78
Jonathan Miller	CEOE	\$654,225.89
Grand Total		\$15,628,970.56







Research Proposal Activities







Total Research Funding for FY 20-21









Total Patents Granted by Department AY 19-20

DEPARTMENT	PATENTS
Biomedical Engineering	3
Chemical Engineering & Materials Science	1
Chemistry & Chemical Biology	0
Civil, Environmental & Ocean Engineering	0
Computer Science	4
Electrical & Computer Engineering	1
Engineering & Science	0
Mathematical Sciences	0
Mechanical Engineering	2
Physics	0
Grand Total	11

Number of Refereed Journal Articles and Conference Papers Published AY 19-20

DEPARTMENT	JOURNAL ARTICLES	CONFERENCE PAPERS	
		10	
Biomedical Engineering	17	13	
Chemical Engineering & Materials Science	35	3	
Chemistry & Chemical Biology	13	0	
Civil, Environmental & Ocean Engineering	73	5	
Computer Science	15	59	
Electrical & Computer Engineering	25	34	
Engineering & Science	1	1	
Mathematical Sciences	29	2	
Mechanical Engineering	44	27	
Physics	29	6	
Grand Total	281	150	

RESEARCH

FACILITIES AT STEVENS

Recently Renovated Spaces

The Schaefer School has invested in upgrading departmental office spaces and conference rooms to better greet students and visitors. The following locations were renovated during the 2020-21 academic year:

- EAS 102 BME Research Lab
- EAS 130C ME Research Lab
- Burchard 107 ECE Research Lab
- Burchard 212 ECE Department Office
- Burchard 515 PHY Teaching Lab
- Burchard 521 PHY Teaching Lab
- Burchard 620/622 PHY Research Labs
- Carnegie 1st Floor ME Research Labs
- Davidson Laboratory CEOE Department Office
- Davidson Laboratory 2nd Floor Upgrades
- Griffith Building CEOE Research Lab
- Griffith Building CEOE Research Lab

MakerCenter

The Schaefer School launched the MakerCenter, comprised of multiple SES facilities and services. The MakerCenter is a design hub where students and researchers conceptualize and build prototypes to turn ideas into reality.

This collaborative MakerCenter houses cutting-edge technologies and tools that today's STEM students and researchers need to become innovators and leaders. In the MakerCenter, students and researchers build physical systems in a functional and inspirational environment while gaining real-world experience.

The MakerCenter provides facilities and services including 3D printing, quantum testing, machining, electronics, laser cutting, welding, and more.

MakerCenter facilities include:

- MakerSpace
- Prototype Object Fabrication (ProOF) Lab
- Quantum Space
- Machine Shop
- Electronics Shop
- Welding Shop









COMMUNICATIONS HIGHLIGHTS

Athula Attygalle



Jason Corso



Brendan Englot



0



Samantha Kleinberg



Mehmet Kurt

> Rainer Martini



Marsooli



Athula Attygalle was mentioned in *The Washington Post's* piece titled "Scientists solve mystery of bombardier beetle's hot, toxic spray."

Jason Corso was mentioned in *Lifewire's* piece titled "Faking videos is easy, deep nostalgia shows."

Brendan Englot was mentioned in the *Washington Examiner's* piece titled "To cut costs owing to COVID-19, restaurateurs consider the use of robots for some work."

Yuping Huang was mentioned in *Science Daily's* piece titled "Entangled photons created 100 more efficient than previously possible," *Optics and Photonics News's* piece titled "Tiny resonator delivers photon pairs at record efficiency," and *APS Physics's* piece titled "Ultrabright photons for single-chip quantum devices."

Marcin Iwanicki was mentioned in *Reuters Health's* piece titled "Self-organizing "cardioids" promising for research into heart disorders, regenerative medicine."

Samantha Kleinberg was mentioned in *WebMD's* piece titled "What role does artificial intelligence play in medicine."

Mehmet Kurt was mentioned in *Live Science's* piece titled "See how the brain wobbles with each heartbeat in incredible new videos," *Verywell Health's* piece titled "New 3D MRI shows the brain in detail we've never seen before."

Rainer Martini was mentioned in *U.S. News & World Report's* piece titled "What you can do with a physics degree."

Reza Marsooli was mentioned in *Municipal Sewer & Water Magazine's* piece titled "Once-in-a-lifetime floods to become regular occurrences by end of century," and *Newsday's* piece titled "500-year floods about every 4 years? That could be Jamaica Bay's future, study says."

Jon Miller was mentioned in *Asbury Park Press'* piece titled "COVID-19 on the beach: Halfway through summer, social distancing still a work in progress," *NJ 101.5 Radio's* piece titled "Storm-battered NJ coast bracing for more potential damage," and *NJ Spotlight News'* piece titled "Down the Shore, the forecast calls for a 'banner summer.'"

Yue Ning was mentioned in *Health IT Analytics'* piece titled "Predictive Analytics Model Forecasts Future Flu Outbreaks."



No.



MEDIA

Philip Orton was mentioned in:

- ABC News's piece titled "Rising Risk' docuseries examines alarming predictions about New York City flooding."
- *The Associated Press'* piece titled "Study: Climate change added \$8 billion to Sandy's damages."
- NPR's piece titled "Climate change's impact on Hurricane Sandy has a price: \$8 billion."
- *Grist's* piece titled "Study: Climate change to blame for \$8 billion of Hurricane Sandy damages."
- The Verge's piece titled "Hurricane Sandy was much worse because of climate change."
- CBS News' piece titled "Climate change made Hurricane Sandy significantly more costly – \$8 billion more, study says."
- Wired's piece titled "Hurricane 'price tags' could reveal the cost of global warming."
- *Barron's* piece titled "Hurricane Sandy: \$8 bn in damage due to climate change."
- WNYC/Gothamist's piece titled "Hurricane Sandy: The financial cost of global warming."
- *The Philadelphia Inquirer's* piece titled "Climate change is to blame for an estimated \$8.1 billion of Hurricane Sandy losses, researchers say."
- Accuweather's piece titled "News study exposes multi-billion dollar factor in Superstrom Sandy's destruction."
- *Yale Environment 360's* piece titled "Sea level rise caused an extra \$8 billion in losses during Hurricane Sandy."

Hady Salloum was mentioned in *Bloomberg Government's* piece titled "Shipping companies confront cyber crooks as economies reopen" and *ROI-NJ's* piece titled "Stevens leader awarded \$3.3M pact to help develop underwater acoustic security system."

Dibs Sarkar was mentioned in *Essex News Daily's* piece titled "Stevens students to work with WOEC."

Knut Stamnes was mentioned in *Freethink's* piece titled "New AI tool checks up on ocean health from space."

K.P. Subbalakshmi was mentioned in *Medium's* piece titled "Artificial Intelligence Diagnoses Alzheimer's With Near-Perfect Accuracy," and *New Atlas's* piece titled "AI algorithm detects signs of Alzheimer's disease through language."

Hongjun Wang was mentioned in *Lifewire's* piece titled "E-skin could lead to better wearables."



Jon Miller



Yue Ning



Philip Orton



Hady Salloum



Dibs Sarkar



Knut Stamnes



K.P. Subbalakshmi



Hongjun Wang

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