



# Mechanical and Aerospace Engineering Graduate Students Forum

Prof. Jerry Shan & Ms. Cynthia Cartegna

January 20, 2021



# Welcome back

Thank you for a successful and (mostly) healthy Fall semester!

Cynthia Cartegna drop-in office hours:

Mon 3:30-4:30 pm

<https://rutgers.webex.com/meet/ccartegn>

Professor Shan drop-in office hours

Mon & Wed 4:30-5:30 pm

<https://rutgers.webex.com/meet/jshan>

Today, we will discuss:

1. Update on student achievements
2. Update on classes and online teaching
3. Return to research process
4. Deadlines & requirements for graduation
5. Mechanical Engineering Graduate Students Association (MEGA)



# World-Class Faculty & Students

## Selected recent student awards

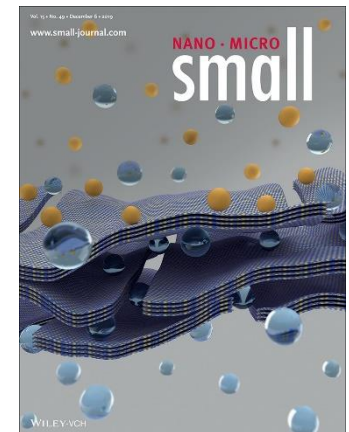
- Peter Balogh
  - 2019 Andreas Acrivos Doctoral Dissertation Award in Fluid Dynamics from the American Physical Society.
  - *"For the development of a high-fidelity, versatile numerical methodology to simulate flow of deformable blood cells in dense suspension through highly complex geometries, and for providing insights to the physics of blood flow in physiologically realistic microvascular capillary networks."*
- Semih Cetindag
  - 2019 Best Presentation Award, Materials Research Society Fall Meeting
  - *Small* cover article



**Peter Balogh,  
Acrivos Dissertation Award**

## Selected recent faculty awards

- Xiaoli Bai
  - 2019 NASA Young Investigator Award
  - 2016 Air Force Young Investigator Award
- Liping Liu
  - 2015 American Society of Mechanical Engineers Best Paper Melville Medal
  - 2015 Society of Engineering Sciences Young Investigator Medal
- Aaron Mazzeo
  - 2016 NSF CAREER award
  - 2014 A. Walter Tyson Young Investigator Award (SoE)



**Cover *Small*,  
Semih Cetindag**



# Online teaching

Courses will be online for Spring and Summer 2021

- Synchronous if at all possible
- No P/NC option

Expect to be back in classroom in Fall 2021

- Many courses will have converged or asynchronous online option



# Return to research

Graduate students who need to be on campus for research can be approved to return

- Request initiated by your research advisor
- Process for approval includes training, regular testing, social distancing in lab

Remember, we are responsible for each other's health!



# General Degree Requirements

## Master of Science (MS)

- 24 **course credits** + 6 research credits
- Up to 2 courses from outside department, maximum of 1 C
- Thesis and Defense

## Master of Engineering (MEng)

- 30 **course credits**
- Up to 2 courses from outside department, maximum of 1 C
- Report & Presentation

## Doctor of Philosophy (Ph.D.)

- 42 **course credits** + 24 research credits + 6 credits of research and/or courses
- (Up to 4 courses from outside department, maximum of 2 Cs)
- At least 1 course from 4 of 5 areas: Design & Manufacturing, Dynamics & Control, Fluids, Solids, Thermal Sciences
- Qualifying exam (usually taken at beginning of 2<sup>nd</sup> year)
- PhD proposal (done within 1 year of passing QE)
- Dissertation and Defense



# MEng Graduation

MEng students: will need to present their project the week of March 22, 2021  
Additional information will be forthcoming.

All paperwork due to the Graduate School  
April 1, 2021 for a May 2021 degree



# MSc and PhD Graduation

MS and PhD students: submit your thesis to your committee by March 8, 2021 giving them 2 weeks to review and 1 week for public announcement.. Also, PhD students need to submit to me the name and address of their outside committee member for the graduate school as soon as a selection has been made.

All paperwork due to the Graduate School April 1, 2021 for a May 2021 degree





# Important Forms

International Students Forms

Reduced Credit

CPT

OPT

Other SGS forms:

<https://gsnb.rutgers.edu/resources/graduate-student-forms>





# MEGA

Mechanical Engineering Graduate Association



# Mechanical Engineering Graduate Students Association (MEGA)

Jan 20<sup>th</sup> , 2021



## Mission Statement



- To improve the lives of the graduate students of the mechanical engineering department by organizing events, career development advice and acting as a point of contact between the students and the faculty.
- **Board members:**
  - Emran Lallow - President
  - Hongxiang Cao - Vice President
  - Mohit Agarwal – Treasurer/ Secretary
  - Luis Miranda- Social Chair
  - Rick Castellano- Former President

## 2020 IN BRIEF

- **Office improvements:**
  - Printers in D150 & D115
  - TA Office hours meetings moved outside of D115 suite\*
- **Department events:**
  - Coffee and Tea: Participating in organizing the event
    - Dr. Benaroya, Dr. Bilgen, Ramez Kiriakos, Erdi Kurtyigit
  - MAE Movie Night
- **Sports:**
  - Ping Pong tournament (MAE vs. BME), cancelled ☹️
  - Chess tournaments
  - Bowling night
  - Intramural volleyball
- **Qualification Exam sessions!!**



## OFFICE IMPROVEMENTS

- Printers in D115 & D150
  - Purchased, installed, and ready to use!
  - Contact Marko Mehalic (D115) or Arastuo Pournadali (D150)
  
- Office Hours
  - No more office hours in D115 suite! All moved to Week's Hall
  - Calendar is set up online in coordination with the department\*



## COFFEE & TEA

- Social event:  
Thursdays 4 pm to  
5 pm
- Efforts to move  
online?





## SPORTS

- Ping Pong tournament (MAE vs. BME)
- Unfortunately got cancelled, but hopefully we can still do it at some point this year



The poster features a blue and orange background with a ping pong table and paddles. At the top left, it says 'RUTGERS School of Engineering'. In the center, two men's faces are shown with a large 'VS' between them. To the right, it says 'MARCH 2020' above a ping pong paddle and ball. Below that, it reads 'PING PANG TOURNAMENT' and 'Hold by: MAE & BME GRADUATE ASSOCIATION'. At the bottom, it says 'Sign up for the MAE / BME Ping Pong Tournament! Sign ups end 3/8 at 9:00 PM' and lists featured professors: Alberto M Cuitino, Haim Baruh, Xi Gu, and Jingang Yi. A QR code is in the bottom right corner.

**RUTGERS**  
School of Engineering

**FIRST SHOW GAME**

**VS**

**MARCH 2020**

**PING PANG TOURNAMENT**

Hold by:  
**MAE & BME GRADUATE ASSOCIATION**

Sign up for the MAE / BME Ping Pong Tournament!  
Sign ups end 3/8 at 9:00 PM

Featured professors:  
-Alberto M Cuitino  
-Haim Baruh  
-Xi Gu  
-Jingang Yi

The tournament will be double elimination.  
There are prizes for 1st, 2nd and 3rd place

- 1st place - \$100!!!
- 2nd place - \$50!!!
- 3rd place, 4th place - \$25 Amazon Gift Card!!!



## SPORTS

- **Previous Winners:**

Chess tournaments,  
[chess.com](https://www.chess.com)

**April 24<sup>th</sup>**

Amit Chawathe 1<sup>st</sup>

Dr. German Drazer 2<sup>nd</sup>

Ramez Kiriakos 3<sup>rd</sup>

**May 9<sup>th</sup>**

Dylan, Kovacevich 1<sup>st</sup>

Jeet Panchal 2<sup>nd</sup>

Ramez Kiriakos 3<sup>rd</sup>

**June 27<sup>th</sup>**

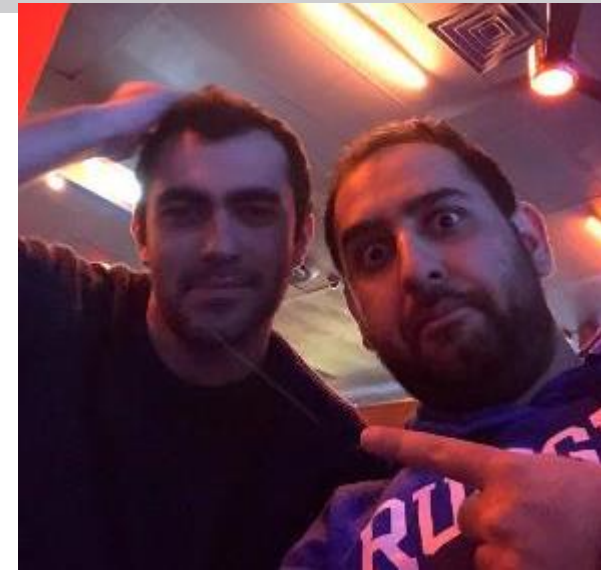
Dr. German Drazer 1<sup>st</sup>

Marko Mihalec 2<sup>nd</sup>

Ramez Kiriakos 3<sup>rd</sup>



- Bowling Night
- Intramural Volleyball



Overall Cook Volleyball Rankings

POINTS PER GAME	POINTS AGAINST	STREAK	TOP PLAYER										
3	0.25	Won 4	No MVP										
<b>2nd</b> <small>Overall</small>	<b>1st</b> <small>Overall</small>	<b>Won 4</b> <small>Overall</small>	<b>No MVP</b> <small>Overall</small>										
W	L	T	F/D	SR	WPCT	PTS AVG	GB	PF	PA	DIFF	STRK	TOT PTS	
5'13	4	0	0	0/0	4	1.00	1.00	-	12	1	11	Won 4	12
BDN	4	0	0	0/0	4	1.00	1.00	0	12	1	11	Won 4	12
Setting Ducks	4	0	0	0/0	4	1.00	1.00	0	12	2	10	Won 4	12
Pass and Hitties	4	0	0	0/0	3.75	1.00	1.00	0	12	2	10	Won 4	12
Mrs. Puffs Boatl...	3	1	0	0/0	4	.750	.830	1	7	5	2	Won 2	10
CCF2	2	2	0	0/0	4	.500	.670	2	8	6	2	Loss 1	8
CCF	2	2	0	0/0	4	.500	.670	2	5	6	-1	Won 1	8



## QUALIFICATION EXAM SESSIONS

- Resources are organized in an google drive folder
- 22 students signed up!
- List of tutors:
  - Paul Ferri
  - Aliasghar Arab
  - Hesam Sharghi
  - Semih Cetindag
  - Arastou Khamseh
  - Ramez Kiriakos
  - Harish Devaraj
  - Erdi Kurtyigit



## COMMUNICATION

- Facebook MEGA chat
- MEGA emails
- MEGA Website



## GET INVOLVED

- First Year Representative
- Web Master
- Office hours/Calendar Organizer
  
- Contact: Emran  
([eol4@scarletmail.rutgers.edu](mailto:eol4@scarletmail.rutgers.edu))



# Summary

**Have a great (and healthy) Spring semester!**

Remember:

1. Office hours

Cynthia Cartegna drop-in office hours:

Mon 3:30-4:30 pm

<https://rutgers.webex.com/meet/ccartegn>

Professor Shan drop-in office hours

Mon & Wed 4:30-5:30 pm

<https://rutgers.webex.com/meet/jshan>

2. Deadlines & requirements for graduation
3. Check MAE & Graduate School websites for key information
4. Participate in Mechanical Engineering Graduate Students Association (MEGA)



# Questions?

- Now?
- Later:
  - Prof. Shan's office hours: M/W 4:30 – 5:30 PM at <https://rutgers.webex.com/meet/jshan>
  - Other times by appointment

