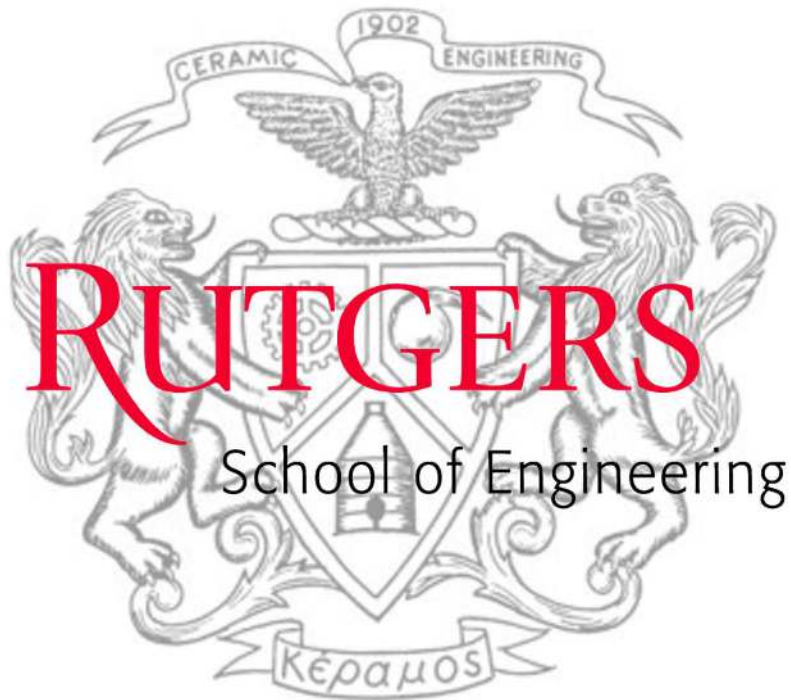


# KERAMOS RUTGERS UNIVERSITY STUDENT CHAPTER 2021-2022 ANNUAL REPORT



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Prepared For:

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and  
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# Table of Contents

<b>Keragram Article</b>	<b>3</b>
<b>Contact Information</b>	<b>4</b>
List of Officers, Delegates, and Alternates for 2022-2023	4
List of Active Members	4
Graduating Member Contact Information	5
<b>Treasurer's Report</b>	<b>5</b>
<b>Chapter Activities</b>	<b>6</b>
Educational Outreach	6
Professional Development	6
Service to the Ceramics Community	7
Alumni Engagement	10
Interorganizational Communications and Collaboration	10
<b>Annual Plan for Upcoming Academic Year</b>	<b>12</b>
CGIF Grant Completion	12

## Keragram Article

This past year has been another successful and lively period for The Rutgers University, New Brunswick Chapter. Our informal outreach events such as game, trivia, and study nights have served to further advertise our chapter and build relations between our own members and other students and faculty within the Materials Science and Engineering (MSE) department. The chapter has been an active partner by volunteering at recruitment events such as Major's Night and Honors Academy department showcases, as well as lab tours, and outreach events such as our interactive pottery making event and in person meetings with students from a neighboring high school. The chapter has also hosted its second annual networking event hosted in collaboration with the society of plastic engineers and held its very first successful panel discussion event, which saw the recruitment of graduate students and alumni to discuss the

career options available for MSE students upon graduation.










Being awarded the Ceramics and Glass Industry Foundation grant for the 2021-2022 academic year has allowed our chapter to continue visiting local high schools to introduce and promote the fields of ceramic and glass engineering. Additionally, our chapter introduced a pottery making event that saw an surprising success! This event hosted by our chapter featured the ability for these students to shape and personalize pottery pieces while being introduced to the structure and

properties of ceramics, exposing them to both the artistic and scientific aspects of ceramics under the guidance of Keramos members and faculty. This was then followed by an opportunity to speak with our department chair about aspects of study within materials science and engineering as well as potential career trajectories within the field.

## **Contact Information**




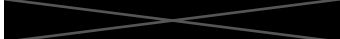



### **List of Officers, Delegates, and Alternates for 2022-2023**

Position	Last Name	First Name	Phone	Email	Delegate
President	Gallagher	Shane			X
Vice Pres	Becker	Maya			-
Treasurer	Patel	Avi			-
Secretary	Wenson	George	-		-
Herald	-	-	-	-	-

### **List of Active Members**

Last Name	First Name	Status	Induction Date	New Initiate
Sukenik	Emily	Graduate	2019 Spring	
Tewatia	Arya	Graduate	2016 Spring	
MacDowall	Brian	Graduate	2017 Spring	
Becker	Maya	Undergraduate	2021 Fall	
Gallagher	Shane	Undergraduate	2021 Fall	
Patel	Avi	Undergraduate	2021 Fall	

### **Graduating Member Contact Information**

Last Name	First Name	Phone	Email
Tamraz	Rokia		
Hluchy	Rachel		
Pasara	Alex	-	-
Gould	Ali		-
Lalo	Patricia		

### **Treasurer's Report**

Event	Description	Cost
General Interest Meeting	Welcome back for members	\$100
Pottery Night	clay and pottery tools	\$100
Panel Discussion	Food for event	\$30
Rutgers Day Demonstrations	Materials for Demos	\$300.00
Piscataway HS Visit: NSHS	Transportation	\$60.00
Study Sessions (Multiple)	Food (Donuts and Coffee)	\$140
Game Nights (Multiple)	Food (Pizza, Drinks)	\$60.00
<b>Total Cost</b>		<b>\$790</b>

## Chapter Activities

### **Educational Outreach**

#### *Piscataway High School Visit: National Science Honors Society Meeting*

A partnership with a Rutgers Materials Science alumna who is now a current teacher at the local Piscataway High School allowed for Keramos involvement with the high school's National Science Honor Society chapter. At this event, current Materials Science and Engineering Keramos members at Rutgers presented a brief presentation on: what Materials Science Engineering is in general and the Rutgers University Materials Science and Engineering program and degree, the career and graduate school opportunities



possible with this major in general, and what the student presenters have accomplished so far in their Rutgers University careers (Figure 2). There were around 40 high school students in attendance. About 20 Mini Kits that were generously provided by the CGIF grant were used for this event.

#### *Princeton Day School Visit: Science Olympiad Meeting*

We will be holding an outreach effort of similar fashion to Princeton Day School on April 30th. Our point of contact at the school is a high school teacher and Rutgers University Alumna. We plan on utilizing the CGIF Mini Kits for that event as well.

### **Professional Development**

#### *Panel Discussion: Things I Wish I Knew as a Sophomore*

For this event, we recruited undergraduate and graduate students as panelists to discuss the options a freshmen or sophomore majoring in MSE can pursue during and after graduation. We recruited a undergraduate who participated in a research internship, an undergraduate who participated in an internship in industry, another student that opted for the senior lab course, a fourth student who opted for a senior design project, and lastly, a student pursuing a PhD in the MSE department at Rutgers University. About 20 students attended this event. Attendees got to ask the panelists questions and get their advice on how to secure these internships or research



opportunities, the interview process, how to prepare for the respective endeavors, how to polish their resumes, and how to set yourself up for success.

### *Networking Event*

To aid students in improving their professional presence, Keramos hosted a networking event in collaboration with the Society of Plastic Engineers. This event saw the attendance of MSE professors, Post Doctorate Research, and graduate students, as well as 60 undergraduate students. In this event, students were split up into groups that were rotating around MSE Faculty in timed sessions to discuss the research faculty are overseeing their labs, the research opportunities available to students, and advances in industry related to their respective fields. This event was open to the Rutgers engineering student body and was promoted as such, so it also served as an outreach effort to non-MSE engineering students.

## **Service to the Ceramics Community**

### *Study Sessions*

Keramos hosted semesterly study sessions before the midterm periods in the fall and spring in order to support students in their academic careers while also allowing for camaraderie to be built between peers (Figure 3). This event is primarily hosted for sophomore and junior students who are new to the department's curriculum and professors to aid in their success.



Study Night attendees enjoy the pizza and refreshments provided while a junior year student reviews class material on a projector before one-on-one tutoring by Keramos members is offered.

### *MSE Night*

Through a partnership with the Rutgers Materials Science and Engineering department, every semester Keramos engages with freshmen engineering students in order to promote Materials Science Engineering as a major for their consideration. Keramos works to promote the glass and ceramic engineering portions of the department offerings through informational sessions, lab tours, and social sessions involving professors, students, and prospective freshmen. This event is hosted before the freshmen declare their engineering majors and is a major recruiting event. This

year, Keramos played an integral role in MSE Night by leading over 80 students through the department's lab tour, which included a glass pouring demo, a holography demo, a TEM demo, and an additive manufacturing demo.

### *Majors Night*

In April, the School of Engineering hosts a Majors Night during which all engineering departments table in order to encourage undecided engineering students to choose an engineering major. The Keramos members were planning to act as student volunteers to engage with these undecided students by sharing their personal experiences, the advantages of a major in glass and ceramics engineering, and promoting the department's program offerings. This event allows for the major to be promoted to the prospective students, many of which had no exposure to the majors prior.

### *Trivia Night*

This year, Keramos also hosted a trivia night that saw the attendance of newly declared MSE students. This event facilitated the introduction of current and new MSE students and promoted a sense of camaraderie amongst them. The event also familiarized new MSE students with professors in the MSE department and their respective areas of research. This was an enjoyable and effective way of welcoming new students into the department and familiarizing them with its spirit.



Trivia Night



### *Open House & Rutgers Day*

Every year Rutgers opens its doors to the general public in university-wide festivals. For Open House, prospective and admitted School of Engineering students are invited to the New Brunswick campus in order to learn more about the school and its program offerings. For Rutgers Day, it was estimated that about 94 thousand people attended Rutgers Day in 2019. Therefore both were a perfect opportunity for the Materials Science and Engineering department to showcase the various exciting opportunities a path in materials and ceramic science has to both prospective students, visitors, and alumni. The activities are usually interspersed by research laboratory tours, in which Keramos members play a key component by volunteering. Previous example activities demonstrate liquid-nitrogen-made ice cream, photovoltaic cells and batteries, and flameworking.

### *Pottery Night*

Keramos held a Pottery Night catered towards engineering freshmen that have not declared an engineering major yet. For this event, 50% of the supplemental funding was used to buy the materials required, which were clay and pottery tools. At the beginning of the event, Keramos gave a brief talk about Materials Science and Engineering, what Keramos is, and an introduction of the materials and properties of traditional ceramics. We recruited an MSE student that practices pottery as a hobby to walk students through the process of making a pottery piece. About 25 students attended the event, which was hosted on the Rutgers University campus, and the majority of the students were freshmen who were considering a major in material science and engineering. To promote this event, we reached out to students who had expressed an interest in Material science and Engineering on MSE night( an annual departmental event), which is why we witnessed a greater success than anticipated.



Students Making Pottery during Pottery Night

## Alumni Engagement

This year, alumni engagement efforts have continued after the work conducted by the previous Keramos Rutgers chapter executive board of connecting through LinkedIn. The Rutgers Keramos chapter has a dedicated Keramos LinkedIn group in order to allow for continued connections and communications post-graduation (<https://www.linkedin.com/groups/12235300/>). The roster of past Rutgers Keramos years has been referenced in order to add members into this group. The group asks as a platform to foster an online community representing our strong fraternal bonds, community engagement and scholarship, and to promote interest in the professional aspects of ceramic engineering, technology, and science. Additionally, our outreach efforts came to fruition through the engagement of alumni that now work as High School teachers at Piscataway High School and Princeton Day School.

## Interorganizational Communications and Collaboration

Rutgers Materials Science and Engineering is significantly smaller than most engineering majors offered at Rutgers, which allows for the development of stronger social connections between students and professors. The collaboration between organizations within MSE helps to develop

and maintain these connections and our departmental cohesion. Several social events were held in order to help establish and maintain these connections.

### *Game Nights*

A staple destress event that Keramos and Material Advantage co-host once a semester is game night. During this event, students are encouraged to bring in board games and digital games in order to play with peers. This year, students opted to play Jack Box TV games and brought friends with differing majors! This event is one that is integral in establishing social relationships between peers in the same or different class years. Participation spanned all class years and included students with non-Materials Science Engineering majors.

### *Networking Event*

As previously mentioned, our annual networking event is hosted in collaboration with the Society of Plastic Engineers(SPE).

### *MSE Night*

As previously outlined, MSE night is a massive collaborative effort between the MSE department and Keramos.

### *Engineering Week Demonstration*

The Keramos board also hosted a cotton candy making demonstration during Engineering week, which is a week long event hosted by the Engineering Governing Council at Rutgers University. At this demonstrations, Keramos members explained the science behind the crystallization of sugar, or lack thereof, which results in different kinds of candy such as cotton candy and rock candy. The intended audience of this demonstration is engineering undergraduate student body at Rutgers University.



Keramos Board Members During the Cotton Candy Demonstration

## **Annual Plan for Upcoming Academic Year**

### **CGIF Grant Completion**

The Rutgers Chapter had submitted an application for a CGIF grant for the 2021-2022 year and was granted Materials Kits and supplementary funding in December of 2021. The proposed events were completed. The Rutgers Chapter plans to submit an application for the grant for the 2022-2023 school year by September 2022 to be able to plan outreach efforts for the fall semester as well and to expand our outreach efforts even further.