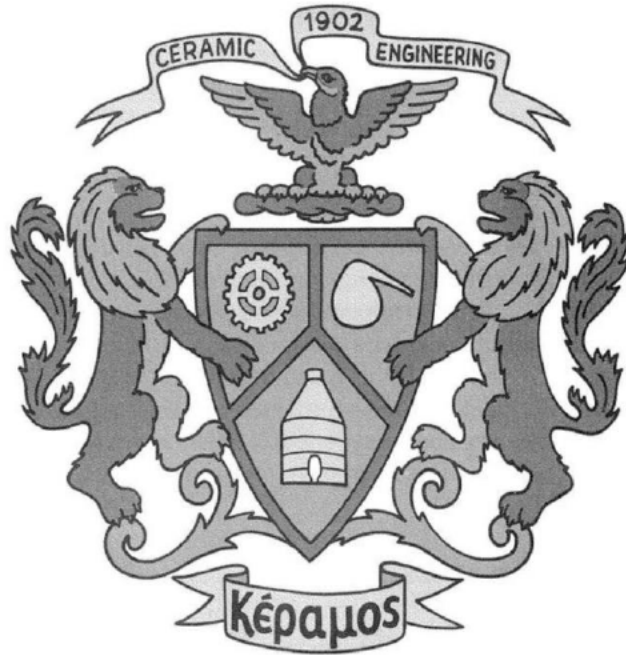


# KERAMOS STUDENT CHAPTER ANNUAL REPORT COVER SHEET



**Student Chapter Name:**  Rutgers University

**Academic Year:** 2016-2017

*I hereby submit the attached Annual Report on behalf of my chapter. The information contained within this report is accurate to the best of my knowledge.*

**Submitted by:**  Edmund Han

**Date:**  5/11/2017

## Executive Board

### Keramos Faculty Advisor (2016-2017):

Ashutosh Goel, Assistant Professor ..... [ashutoshgoel81@gmail.com](mailto:ashutoshgoel81@gmail.com)

### Keramos Executive Board (2016-2017):

President: Edmund Han ..... [REDACTED]

Internal VP: Ojaswi Agarwal ..... [REDACTED]

External VP: Jamie Wooding ..... [REDACTED]

Treasurer: Wesley Kendall ..... [REDACTED]

## Members

### Undergraduate Students

Ojaswi Agarwal  
Justin Cheng  
Steven Cheng  
Edmund Han  
Wesley Kendall  
Ryan Lay  
Brian MacDowall  
Mitchell Modzel  
Kelly Ruffenach  
Joshua Tedesco  
Jamie Wooding

### Graduate Students

Charlies Cao  
Ambar Deshkar  
Michael Gagnepain  
Ross Rucker  
Mark Schaefer  
Arya Tewatia  
Shawn Ward



## CHAPTER ACTIVITIES

### Service

#### Engineering First Year Kick-Off

*September 2016*

Keramos participated in the EGC Engineering First Year Kick-Off event. As new freshmen went through their School of Engineering orientations in early September, many student organizations tabled at a campus courtyard to talk to the new students about their majors and clubs. Keramos members spoke to many students about material science and why it is a good major to go into. A crystal structure of diamond was displayed and those who guessed correctly about what it was got a free Material Science t-shirt.

#### Study Sessions

*Throughout the year*

During the peak of MSE-related exams throughout the year, Keramos hosted multiple study sessions for sophomore, junior, and senior Materials Science and Engineering classes. The club provided donuts and coffee and an area to study. At these meetings, underclassmen asked for help in particular topics they didn't understand fully and upperclassmen were happy to review the concepts with them. These sessions are very helpful as study preparation, but also allows the MSE class years to interact with each other.

#### NJ ScoutFest 2016

*October 2016*

This was the first year in which Keramos participated in NJ ScoutFest 2016, a local community fair dedicated for boy scouts and girl scouts of all age demographics. The club organized an "oobleck" (corn starch and water mixture) station to teach children about materials engineering topics such as rheology in a fun and engaging fashion. While the children may not have fully grasped the rheology applications, they left with a greater appreciation for materials science and engineering.



## **Young Engineers Day**

*February 2017*

During Engineering Week at Rutgers University, there is a particular day, Young Engineers day, in which K-12 students are invited to the university campus, and each of the Rutgers engineering organizations hold fun activities for them. Keramos prepared a “Design a Filter” activity, in which the students were tasked with constructing a mud-water filter using an empty plastic bottle, pipe cleaners, wax paper, stone pebbles, straw, paper confetti, and cotton balls. The club even implemented a budget and cost system for the various materials that they could “purchase”. Overall, the students really enjoyed the activity because it felt like a real-world engineering project.

## **SOE Open House**

*April 2017*

During the School of Engineering Open House, Rutgers University invites accepted high school senior students to come and learn more about the various engineering departments and engineering-related organizations. Keramos members were present to showcase our organization and the MSE department as a whole. As many high school students are not familiar with Materials Science and Engineering, this event was a great way to increase exposure for the field, as well as for Keramos.

## **SWE Majors Night**

*April 2017*

Working with the Society of Women Engineers, Keramos organized the MSE table during the SWE Major’s Night event in which Rutgers freshman students can talk with upperclassmen about what each major has to offer. Keramos invited many of the MSE faculty to also talk with the students, which was led to be a great success in demonstrating dedication of our department and global impact of our field of study.

## **MSE Night**

*April 2017*





This event, specifically led by the MSE Department Chair, is for freshman engineering students to show them what the MSE department has to offer before they officially declare their majors. Keramos members would act as tour guides to various MSE research labs such as microscopy, fiber optics, computations, ceramics, and glass. Additionally, Upperclassmen can share their experiences throughout their years in MSE. This is one of the larger recruiting events for the department in which a majority of the Keramos members dedicate their time to help in any way possible.

## **Rutgers Day**

*April 2017*

Prospective students and families come to Rutgers to see what the university has to offer. The MSE department and organization reached out student members to explain various aspects of MSE, using various demonstrations and activities. This year, the activities varied to making crystal structures out of gum drops and toothpicks, serving ice cream made from the use of liquid nitrogen, a quicksand demo, and cotton candy-making. Rutgers Day is by far the most popular event for Keramos members and the greater community alike.



# Professional Development

## **Student Speaking Competition**

*October 2016*

Keramos hosted a student speaking competition in which MSE students present their research or internship findings in an oral presentation format. This provides great practice for public speaking, an essential soft skill in any field of work. Furthermore, the winner of the competition would be fully funded to travel to MS&T 2016 to compete at the national MS&T Undergraduate Student Speaking Contest. The Rutgers University winner, Joshua Tedesco (also a Keramos member), participated at the MS&T 2016 Conference, and he was a finalist!

## **Student Poster Competition**

*October 2016*

Keramos also hosted a student poster competition, in which MSE students present their research or internship findings in a poster format. The students with the best posters would also be fully funded to travel to MS&T 2016 to compete at the national MS&T Undergraduate Student Poster Contest.

## **MS&T 2016 Conference**

*October 2016*

For the first time in 9 years, the Rutgers University Keramos chapter was represented at MS&T 2016. The club assembled a team of undergraduate students to participate in the Keramos Mug Drop Contest. All of the team members would be fully funded to travel to MS&T 2016. To continue Rutgers University's participation at the annual MS&T conferences, the club created a new E-Board position, the Competition Captain, who would be in charge of leading next year's team of students to participate in the Mug Drop and Disc Throwing Contests. As all Rutgers attendees were fully funded, this was a great opportunity for students to network with students, professors, and leaders in the various fields of materials science.

## **Student-Faculty Speed Networking**

*March 2016*

Keramos invited MSE professors and students to come together and network with each other in a non-classroom setting. The club rented a spacious hall and tables, and purchased drinks and appetizers, to create a friendly and comfortable environment for MSE students to talk with professors. Overall, the students really enjoyed interacting with their professors in a non-academic environment.

## Social Activities

### Ice Cream Social

*September 2016*

Keramos hosted an ice cream social in the beginning of the Fall semester. This was a great way to introduce the new MSE sophomore class to our organization. Additionally, it was another opportunity for the undergraduate MSE students to interact with each other, especially across class years.



### MSE Game Night

*November 2016*

In October, after the majority of the first set of midterms, Keramos hosted a Game Night at the student center. Students were invited to come and enjoy a night of Moe's catering and multiple games from the Wii, Settlers of Catan, and other activities. At this event, there was a good turn out of students from all classes allowing sophomores, juniors, and seniors in material science to get to know each other.





## **MSE Open Mic Night**

*December 2016*

With the Rutgers MSE Graduate Student Association, Keramos co-hosted an open-mic, coffeehouse-style event for the MSE undergraduates, graduates, and faculty. We rented an auditorium and provided dinner food, such as sandwiches and wings. The MSE GSA awarded the best performer with a \$25 amazon gift card.

## **MSE Game Day**

*May 2017*

During the annual MSE BBQ hosted by the graduate student association and the MSE department at Rutgers, Keramos hosted the second annual MSE Game Day where a team of undergraduate students competed against a team made up of graduate students and faculty in various events. These events included a relay race, water balloon toss, and volleyball tournament. This was a huge end of the year event with an amazing turn-out. Those who participated in the games bought a team t-shirt designed by one of the Keramos members. All proceeds went to Imagine, a free year-round children's grief support center that serves NJ children age 3-18 and young adults 18-30 who are grieving the death of a parent or sibling, or who are living with a parent of sibling with a life-altering illness.

