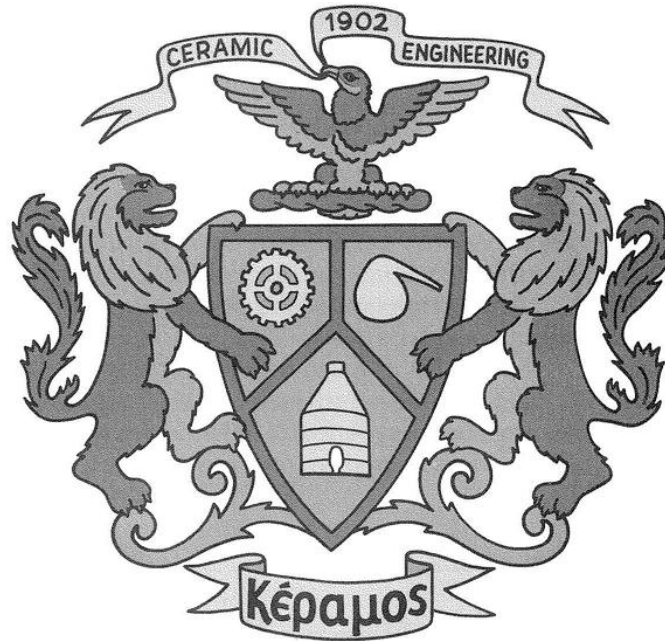


KERAMOS STUDENT CHAPTER ANNUAL REPORT COVER SHEET



Student Chapter Name: Rutgers University

Academic Year: 2013-2014

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:  **Date:** 08/23/14

NEW OFFICER LIST

Keramos Faculty Advisor (2014-2015):

Manish Chhowalla, Professor and Associate Chair - manish1@rci.rutgers.edu

Keramos Executive Board (2014-2015):

President: Pragi Siva [REDACTED]

Internal VP: Denise Bion [REDACTED]

External VP: Casey-Ann Smith [REDACTED]

Treasurer: Max Kuciej [REDACTED]

Secretary: Ian Maher [REDACTED]

NEW INITIATES

The following were formally inducted per Keramos guidelines on **October 23, 2013** for the class of **2013-2014**.

**This is the identical class listed for the 2012-2013 inductees. These inductees were only listed on the previous report to fulfill their missing class. A second induction process for the 2013-2014 year had little interest by the student body. Rutgers Keramos will have regular annual induction ceremonies following this report.*

Melzer, Jeffrey, E
Crowley, Jesse, T
Fabboli, Kolette
Won, Jun
Spatocco, Peter, D
Jain, Manika
Siva, Sivarampragadeesh
Gereffi, Clay

Freedman, Maxwell S.
Kilanowski, Keith, J
Snyder, Sarah A
Ferguson, Spencer, D
Vijapurapu, Divya K
Pettinelli, Eric, H
Lu, Matthew, Y

CHAPTER ACTIVITIES

MSE Game Night (10/03/13) – The Cove in the Busch Campus Center used to be an arcade room and was the perfect venue for a game night. Three TVs were set up with various console games and a Tournament for Super Smash Brothers was set up on a projector on the main stage. In the middle were tables set up for board-games and refreshments. This event was targeted toward two groups, the MSE students and prospective freshman. The goal was to give a break to students after the first round of exams, while promoting interactions with the different classes and give prospective freshman an image of what MSE life is about. This was our biggest recruitment event and general body meeting attendance sharply increased.



Graduate School / Industry Panel (10/21/13) – The discussion of Industry vs. Graduate School was a hot topic among senior MSE students. We reached out to alumni to give the students an idea of life after graduation. The panel consisted of MSE alumni who went straight to industry, straight to graduate school, or those who picked one and switched to the other. Panel members explained their experiences and gave valuable tips to audience members. The audience, from various engineering disciplines, came with questions that pushed the event to the very last minute. A special thanks to panelists pictured below from left to right: Carlos Bledt, Christopher Petoukhoff, Riyanka Pai, Jesse Kohl, Alexa Abdelaziz, and Eric Sobolewski



MS&T 2013 (10/27/13) – Seven students (David Manoukian, Antanas Mockus, Ian Mahar, Mike Montgomery, Wesley Jen, Shain Patel, and Spencer Ferguson) were funded by Rutgers Material Advantage (MA) and Keramos to attend the conference in Montreal, Quebec, Canada. The students attended various talks that pertained to their individual interests and, for some, to the research that they were conducting back at Rutgers. Spencer Ferguson won a Rutgers MSE hosted speaking contest and was chosen to represent Rutgers at the MS&T Speaking Contest.

MSE Annual Holiday Party (12/12/13) - Rutgers MSE students, faculty, and alumni are invited to a private dinner, where the goal is to promote networking in a social setting. Music was played by “Intellectual Property,” a band with 4 members who are MSE Faculty. This year’s Annual Holiday Party was moved to the Red Lion Café to accommodate the increased attendance. The larger venue will likely be the future location of the Holiday Party as we received very positive feedback from the students and faculty.



Guest Speaker, Dr. Paul McManamon (01/30/14) – Rutgers MA, Keramos and SPIE invited Dr. McManamon to give a talk on Remote Laser Sensing. Dr. McManamon is the technical director of the Ladar and Optical Communications Institute at the University of Dayton. Co-hosting an event with SPIE brought in more interest from the MSE student body. The department has a large focus on traditional ceramic and metallurgical engineering. A goal of this Eboard was to broaden interest and Photonic research is a growing area of research at Rutgers.

Guest Speaker, Karl Schmidt (02/20/14) – Rutgers MA, Keramos, and ASM invited Karl Schmidt, a R&D Engineer from MakerBot Industries, to give a technical talk on Materials Challenges in 3D Printing. Mr. Schmidt’s talk discusses the basic designs of the various printers that MakerBot sells and materials issues that they are working on for future models. He brought along a Replicator™ 2, Desktop 3D Printer to demo and various parts that it could made to give the audience an idea of what items can be prototyped by the 3D printer. The Replicator™ would produce black chains for audience members throughout the night. The Rutgers MSE department has faculty members with multiple patents related to 3D printing, which lead to a large interest from faculty and student alike.



Student Volunteer Events (Various Dates) – There were many events hosted by Rutgers or the Engineering Governing Council (EGC) where student members would represent this organization. Some major events are as follows:

- N.E.R.D. Olympics (02/19/14) – This is one of EGC’s biggest events that has various engineering societies hosting an activity. Ours was a “Periodic Table Bean Bag Toss” where people would try to make a compound by tossing two beanbags onto a big periodic table.
- MSE Night (03/31/14) – This event is for freshman engineers to show them what we have to offer. Student volunteers would act as tour guides to various labs and to share their experiences throughout their years in MSE.
- Rutgers Day (04/27/14) – Prospective students and families come to Rutgers to see what the university has to offer. The MSE department and organization would reach out to student members to explain various aspects of MSE, using various demonstrations and activities.

End of the Year BBQ (05/7/14) – This is the last social event of the year and is held the week before finals. It is held to give the students a break before final exams and end the year off on a positive note. It is held on the MSE courtyard and is attended by both students and faculty.

Study Nights (Various Dates) – All MSE students have roughly the same course schedule and since exams are usually around the same time, it was easy to set up study sessions. This was done for students of each year to allow for experienced upperclassmen to help explain concepts to students. A large conference room with coffee and donuts was rented out for the students for a whole night. During finals time, it was rented out for a whole day.

Plant Tours (Various Dates) – Unfortunately, plant tours that were planned throughout the spring semester were canceled. Scheduling issues were the main complication but with earlier planning, Rutgers MA and Keramos plans to keep these plant tours for the 2014-2015 school year. The list of tours is as follows: Croda, Horiba, Solidia Technologies, and the Princeton Plasma Physics Labs.