

Graduate Association of Mechanical Engineers

Annual Report 2004 - 2005

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Vice-President:	Barry Kudrowitz
Secretary:	Mats Cooper
Treasurer:	Kathie Dionisio
Social Chair:	Danielle Zurovcik
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MEGA Women Rep:	Sasha Manoosingh
13Seas Rep:	Gabriel Weymouth
Machine Shop Chair:	Lael Odhner
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Coffee Chair:	Raul Coral Pinto
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Massachusetts Institute of Technology
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Executive Summary

The report that follows covers activities and initiatives undertaken by the MIT Graduate Association of Mechanical Engineers (GAME) from Spring 2004 to the current date. Of particular importance are the wide variety of successful recurring activities that GAME has led, many times in conjunction with other graduate student groups on campus. Specific examples include monthly happy hours/socials, summer BBQ's, and a lunchtime seminar series. These events have been effective in enhancing the sense of community and tradition within the department.

New milestones include hosting weekly coffee hours, planning of a winter celebration, obtaining corporate sponsorship for events and initiating a revised process by which students obtain access to the graduate machine shop.

Feedback provided by graduate students within the department is generally good, with specific requests for improved efforts regarding academic advocacy activities for GAME, such as more work on improving the availability of materials for preparing for qualifying exams.

GAME views the aforementioned advocacy related initiatives, coupled with improved access to academic resources, as well as the enhanced involvement of faculty and staff in social activities as priorities in its future work.

1. History

The Graduate Association of Mechanical Engineers (GAME) represents graduate students within the Mechanical Engineering Department at MIT. The overall goal of GAME is to strengthen and enrich faculty-student relations and the graduate student community within the department.

GAME was founded in the Fall of 2002 by a group of students in the Mechanical Engineering department to serve the needs of the ME graduate community. The GAME founders are Tarek El Aguizy, Krishnan Sriram, Sofy Tarud, Matt Traum and Jennifer Topinka. These students were responsible for obtaining departmental sponsorship and ASA recognition, writing the GAME constitution and setting up the first meetings and officer elections.

2. Organization

GAME is divided into two levels of organization: officers and executive committee members. The GAME officers consist of the President, Vice President, Secretary and Treasurer. The officers can be reached by email at: game-officers@mit.edu. The executive committee consists of the officers, founders, committee chairmen and other members who are very active in running the organization. Executive committee members can be reached by email at: game-exec@mit.edu.

2.1 GAME Officers

The second round of GAME officers were elected in February 2004. President Nici Ames, Vice President Conor Walsh, Secretary Abhinandan Agrawal, and Treasurer David Quinn served on the executive committee. The current round of GAME officers, as listed on the title page, were elected in February 2005 and continue to serve.

2.2 GAME Executive Committee Members

In addition to the elected officers, the remainder of the executive committee are committee chairs and representatives. Committee chairs organize events and facilitate other GAME initiatives and as represent the mechanical engineering department graduate students in various capacities both inside and outside of the department. The current list of committee chairs and representatives are provided on the title page. Since the previous report, several chair positions have been created or modified. A social chair position was created in the Spring 2004 term and remains an intricate position in planning the many social events for GAME. Also, the orientation chair position has been expanded to include the responsibilities of planning prospective student weekend activities, which GAME considers to be particularly successful. Additionally the creation of the coffee hour chair position has been vital to the maintenance of one of GAME's newest traditions (discussed below).

Finally, previous GAME officers are invited to remain active on the executive committee without a specific title or office. GAME is forever indebted to the many previous officers and executive committee members who continue to play an active role in event planning and guiding the direction of GAME.

2.3 Faculty Advisor

The faculty advisor for GAME is Professor David Hardt. Since his acceptance of this role in the Spring 2004, GAME executive committee members have met with Professor Hardt on two occasions, in addition to a series of email correspondences, in order to discuss plans and to seek advice on event planning and interacting with the ME faculty. Professor Hardt has been an invaluable mentor and can be considered a motivating force behind some of GAME's most successful activities, such as coffee hour and the winter celebration (discussed below).

3. Activities

3.1 Student Seminar Series

The seminar series provides a venue for current ME graduate students to present their research to their fellow students. Last year twenty-one students presented their research in this forum. The speakers enjoy the series because it gives them a forum to practice presenting their work and, in doing so, prepare for the doctoral qualifying exams or upcoming conferences. The audience enjoys learning about the wide variety of research being conducted by their colleagues at MIT. A pizza lunch is offered at each seminar, which helps boost attendance. Seminars consist of two twenty minute presentations and are held every other Wednesday during the semester.

3.2 New Student Orientation

In September of 2004, GAME organized the second student run Mechanical Engineering Graduate Student Orientation. The purpose of the orientation was to facilitate the transition of the new students to life as a graduate student at MIT. The main orientation included several events scheduled over a two-day period, which allowed new ME graduate students to meet and get to know one another. Events included a welcome brunch, a trip to the Harbor Islands, a Sam Adams Brewery tour, an ice cream social, a bike trip to Walden Pond, and a pub crawl to discover the Boston nightlife.



In addition to these activities, a mentorship program was initiated in which current Mechanical Engineering graduate students were paired up with one or more incoming graduate students and put in contact over the summer. The goal of the mentorship

program was to allow the new students to ask any questions they might have about coming to MIT as a graduate student, such as how to find an advisor, how to find housing and how to register for classes.

Overall, the orientation was extremely successful. Several new students have commented on how glad they are that we ran the orientation, as they were able to meet so many of their peers at the events. Also, several older students have commented on how they wished an ME orientation had existed when they came to MIT, a sure sign of the success of the program. Amy Banzaert reflected on her orientation experience: “I found the GAME orientation to be invaluable – I was pleasantly surprised by how welcome I felt, and that experience made the challenging transition into grad school life much easier. I am extremely grateful to the organizers of orientation for providing these experiences, and would have had a much harder first semester without them.”

3.3. Prospective Students Weekend

A new initiative for GAME has been the organization of welcoming and recruiting activities for prospective MIT mechanical engineering graduate students. For the past two incoming classes, GAME has worked with the ME graduate student office in planning social activities during the prospective student weekend. These activities have included dinners in a local restaurant, evenings out in Boston and Cambridge, as well as GAME representative’s presence at welcome lunches. These activities have been highly successful; many of the current first year students have cited these events as a major factor in their decision to attend MIT.

4. Outings

4.1 Ski Trips

GAME has hosted two ski trips in the past year, the first in February 2004 and the second in February 2005. For these trips, money from the GSC has been used to subsidize the cost of a bus and lift ticket for a day trip to Jay Peak Mountain in Vermont. The most recent trip was done in collaboration with MIT Snowriders, a group that was recently established predominantly by several former and current GAME executive committee members. GAME anticipates that this outing will remain a yearly tradition.

4.2 Walden Pond Bike Trip

As part of its orientation activities, GAME led new and current students on a leisurely bike trip out to Walden Pond. This was an effective alternative for those students who were not as keen on the traditional nightlife oriented activities.

4.3 Harbor Islands Trip

GAME sponsored a trip during orientation to the Boston Harbor Islands on September 6, 2004 and paid for the ferry tickets for GAME members. ME graduate students spent

the day eating picnic lunches, playing soccer and frisbee, and exploring Fort Warren on George's Island. The tradition for this trip began in 2003 and will continue as it is always an exciting day in the Massachusetts Bay.

5. Technology Tours

Since its last report, GAME has hosted three well-received tours of mechanical engineering related facilities. The first tour was of the New Balance Shoe factory, where students saw the development sneakers from the design/prototype stage through their mass production in their manufacturing facility.

The second tour took students to the printing press of the Boston Globe, where they witnessed the machinery necessary for the daily production of one of the country's biggest newspapers.

The most recent tour was held at 5WITS in Boston. 5WITS is a theme park where guests are challenged to solve puzzles in a series of rooms in search of the exit. The first exhibit is based on an Egyptian mummy theme and entitled TOMB. Students first participated in the theme park games and were then taken behind the scenes to see the technical aspects of the many special effects that are used in the indoor theme park. GAME Vice President Barry Kudrowitz hosted the tour, and provided many useful insights as he has collaborated with the organization in the design and construction of the theme house.



6. Social Events

6.1 Coffee Hours

Every Friday morning GAME holds a Coffee Hour in the Miller Room close to department headquarters. This is GAME's newest tradition and perhaps the most popular. Coffee and donuts are served each week to a wide range of faculty and student attendees. The event has been especially successful at promoting faculty-student interactions, as a number of faculty members are regulars at coffee hour.





6.2 Happy Hours at the Thirsty Ear Pub

GAME continues its strong tradition of organizing social events at the Thirsty Ear pub in conjunction with 13Seas. Every month of the spring and fall term, pizza and beverages are provided to the students. The events bring together the sometimes disconnected parts of the department in conversation. While research is sometimes the topic of conversation, the laid back atmosphere encourages talk of extra-curricular activities as well. Occasionally,

themes are incorporated into happy hours, such as a St. Patrick's Day Happy Hour, and a Mardi Gras Happy Hour.

6.3 Winter Celebration

GAME initiated a new tradition in December 2004 with a festive holiday party held at the Ashdown House Ballroom. Plenty of holiday treats and beverages were arranged for the guests in a room fully decorated with holiday cheer. A live band performed danceable music. For all who attended it was truly a magical night to remember. GAME looks forward to continuing this event in years to come, and hopes to encourage more overall attendance.



6.4 Barbeques

6.4.1 Summer BBQ's

The summer shifts GAME's social activities from inside to outside, where students enjoy the weather and good food at BBQ's hosted at either the Kresge BBQ Pits or the Sidney Pacific courtyard. Last summer, GAME hosted two standard ME BBQ's in addition to the special event BBQ's listed below.



6.4.2 BBQ's and Softball Games with Aero/Astro

Since Spring 2004 to the current date, GAME has organized three BBQ's with its counterpart in the Aero/Astro department (GA³). In addition to standard BBQ fare, the event also focuses on a friendly softball game between members of the respective departments. No experience is necessary or expected in these games that typically bring together students with a wide range of baseball/softball knowledge. This has made for interesting fun that is nonetheless very competitive. Currently the MechE department is 2-1 in these contests and looks forward to continuing its dominance in the coming year.

6.4.3 Jointly hosted BBQ with EECS GSA sponsored by TheMathWorks

In the first joint event between GAME and the newly established EECS Graduate Students Association, a BBQ was organized for May 31, 2005 to kick off commencement week. Due to inclement weather, this BBQ was moved indoors to the 1st floor of the Stata Center. However, 300+ EECS and MechE graduate students turned out to enjoy the good food and company. Additionally, this BBQ was the first corporate sponsored event for GAME, as TheMathWorks provided the majority of the funds as well as free giveaways and raffles. GAME hopes that this marks the beginning of a series of corporate collaborations for events that are both social, informative and career-oriented.

7. Advocacy and Guidance Initiatives

7.1 Qualifying Exam Information Sessions

In the Spring and the Fall of 2004, GAME, in conjunction with MEGA Women, helped organize two information sessions regarding qualifying exams. In these sessions, faculty from each subject area presented a summary of their respective exams and fielded questions from students. Although GAME believes this initiative can be improved upon, it believes that such information sessions are an important step to demystifying the qualifying exam process.

7.2 Graduate Machine Shop Initiative

Utilizing one of its newest chairperson positions, GAME has set a plan in motion to revitalize the process by which students gain access to the graduate machine shop. Working in conjunction with Papalardo Lab director, Dick Fenner, the tentatively planned process would have Papalardo staff offer periodic training sessions so that

students may bypass the typically long wait times for training at the Edgerton Center. It is expected that the first series of these training sessions will happen over the summer.

7.3 Publications

“Nuts & Bolts”, the official publication of GAME continues to be released every semester since Spring 2004. Topics covered include summaries of events and social activities, news of upcoming initiatives and activities, and human interest stories about people in the department, including students and faculty. Past copies of the newsletter can be found on the GAME website.

7.4 Graduate Student Council Advising Initiative

GAME has played a role in support of a Graduate Student Council initiative on assessing and improving advisor/advisee relationships with the institute. This role has included assistance in the creation of a presentation aimed specifically at the mechanical engineering department covering the results of an institute wide survey given to students on their feelings about relationships with their advisors. This presentation was made at a faculty lunch which GAME executive members attended and provided feedback to questions. GAME is currently considering other ways to act on the results of this survey and looks forward to making this topic a priority in the following year.

8. Interactions with Ocean Engineering Students

A major milestone in the history of the mechanical engineering department, the merger with Ocean Engineering during the 2004-2005 academic year brought on a special challenge to GAME as it required GAME to consider how to best welcome their new departmental colleagues. Several actions were taken with this goal in mind. First, the Winter Celebration was framed not only as an annual winter party but also as a kickoff celebration to the MechE/OE merger. Second, the executive body of 13Seas was invited to attend GAME exec meetings to give background about their operations and standard events as well as to gauge their interest in collaborating on events outside of the happy hour socials that have become a standard collaboration in the past year. To the delight of the GAME executive body, 13Seas agreed that such collaboration would be welcome and specifically cited interactions with the lunchtime seminar series as well as the creation of a second coffee hour to be hosted by 13Seas in the middle of the work week, likely to begin in the fall or mid-summer. GAME looks forward to building upon this new relationship in its activities in the coming year.

9. Feedback

Mechanical Engineering and Ocean Engineering graduate students were asked to fill out a survey posted on the GAME website in May 2005 to evaluate the performance of the organization to date and to suggest improvements for the coming year. Responses to each question were optional. The survey was designed to be anonymous, with the option for participants to submit their email addresses on a separate page to enter a drawing for a gift certificate. One hundred and five (105) students participated in the survey whose result summary is below.

Which of GAME's events do you enjoy or believe is beneficial? Which do you believe are useless? (results out of 105: beneficial / useless)

<i>BBQ's</i>	73 / 1	(70% / 01%)
<i>Coffee Hour</i>	41 / 24	(39% / 24%)
<i>Happy Hours</i>	70 / 3	(67% / 03%)
<i>Orientation Sessions</i>	45 / 4	(43% / 04%)
<i>Quals Info Sessions</i>	68 / 2	(65% / 02%)
<i>Seminars</i>	57 / 8	(54% / 08%)
<i>Winter Party</i>	24 / 14	(23% / 13%)

What kind of events / activities would you like GAME to organize in the coming years? (Answers grouped into categories)

<i>Sports Events (Ski, Bowling, Soccer...)</i>	(6 responses)
<i>Social events with other departments and ones including faculty and students</i>	(5 responses)
<i>Outdoor activities</i>	(4 responses)
<i>Assistance with Academics / Quals</i>	(3 responses)
<i>Events addressing Jobs and post grad issues</i>	(3 responses)
<i>Student – Faculty Meetings</i>	(1 response)
<i>Community Service</i>	(1 response)

Should GAME provide more...

<i>Social Events</i>	44	(42%)
<i>Academic Assistance</i>	34	(32%)
<i>Orientation and Guidance</i>	31	(30%)
<i>Community Service</i>	19	(18%)

How effectively do you think GAME publicized its events? (on a 1-5 scale, 5 being "Effectively" and 1 being "Poorly")

Average 4.1 / 5

How often do you visit GAME's website?

<i>Never</i>	51	(49%)
<i>Once per Month</i>	49	(47%)
<i>Once per Week</i>	4	(4%)

<i>3 Times per Week</i>	0	(0%)
<i>Daily</i>	0	(0%)

How effective is GAME's website in communicating event notices? (On a 1-5 scale, 5 being "Effective" and 1 being "Poor")

Average 3.0 / 5

How effective is GAME's website in providing helpful resources for ME grad students? (On a 1-5 scale, 5 being "Effective" and 1 being "Poor")

Average 2.7 / 5

Did you attend any of GAME's Friday morning hours?

<i>Yes</i>	49	(47%)
<i>No</i>	55	(52%)

If so, how would you rate them overall? (On a 1-5 scale, 5 being "Superb", and 1 being "Poor")

Average 3.3 / 5

Did you attend the MechE/OE winter celebration?

<i>Yes</i>	19	(18%)
<i>No</i>	83	(80%)

If so, how would you rate it? (On a 1-5 scale, 5 being "Superb", and 1 being "Poor")

Average 3.7 / 5

If you did not attend, why not? (percentage based on 83 who didn't go)

<i>I wasn't aware of it</i>	19	(23%)
<i>The tickets were too expensive</i>	11	(13%)
<i>I wanted to go, but wasn't free</i>	29	(35%)
<i>Other</i>	24	(29%)

How would you evaluate the overall performance of GAME during the academic year 2004-2005? (On a 1-5 scale, 5 being "Superb", and 1 being "Poor")

Average 3.9 / 5

Comments and Suggestions:

(Selected comments listed below. No negative comments received)

"I think you are doing a great job. Anything to improve the social life and help graduate students make friends and balance their lives is appreciated. It is very easy to get isolated and lonely in your lab here at MIT, and you help to counteract that trend."

"Thanks to all the GAME officers for their hard work and looking forward to a great year ahead"

"Good job everybody! especially good job i think on orientation. good events, good turnout, i heard a lot of comments from first years that it was really helpful and made them feel like a part of things."

"I think more academic support should be the priority. There needs to be a resource to help people prepare for quals with old exams and study material and feedback on topics to study, etc from past students."

"What about a tips session on getting your thesis started? or maybe there's a link on the website. Everybody's is different, but there are some underlying things like finding the MIT Library's layout directions."

"MechE is definitely the coolest department."

"Being an OE grad I had very little contact with GAME, but so far I am pleased with what has been organized."

"Orientation was great. It will only get better with expansion."

"You have done a fantastic job. keep up the good work. you guys are a model for the rest of the mit community. thanks again!"

The results of the survey will be used to help GAME officers plan for the events and activities of the academic year 2005-2006. They will also serve as guidelines for improving the relationship between GAME and the ME/OE graduate student community, by allowing GAME officers to identify what should be done to help the graduate students in their social, academic and future professional lives.

10. Future Work

Much of GAME's intended future work has been mentioned to above. However, GAME has established several general areas of focus for its goals both in the short and long term. A bullet point summary of GAME's intended focus over the next year is provided below.

1. Continued maintenance of and improvement on social activities within the department

GAME views much of the success in community-building it has had within the last three years to be a direct result of its efforts in planning recurring social events for the graduate community. The maintenance and continued improvement of these events is key to maintaining and building upon the community GAME has already helped establish.

2. Improve faculty involvement and attendance at events

GAME believes that it has fallen short of its responsibilities to include more faculty in events and will make a concerted effort to improve upon this in the near future. Intended actions to do so include an organized scheme for more

personal invitations of faculty members well in advance and on a repeated basis as well as planning a greater number of mid-day activities that faculty and staff may be more inclined to attend as they would not conflict with family commitments.

3. Enhanced advocacy for students

GAME continues to view and market itself as a voice for graduate students within the department. The qualifying exam process, the planning of course-offerings and building upon the advisor/advisee initiative undertaken by the GSC are all areas that GAME has been encouraged by students to continue to work on. GAME looks forward to working with the department administration on these areas to improve the quality of life for both students and faculty.

4. Enhanced academic and research related resources for students

There are several initiatives GAME plans to undertake in the short term to improve academic and research related resources for graduate students. First is the improvement on machine shop access discussed above. Second is the improvement of the GAME website to include links and recommendations on a variety of topics related to doing research in the department, ranging from recommendations on finding an advisor to details on material and service suppliers. In this, there is an opportunity for GAME to collaborate with staff involved in the department website to make this information easy to access and widely known. GAME views such work as an important step to the establishment of a “How To Get Around Mechanical Engineering” guide, a goal set by a previous officer group. Finally, this initiative may also include the posting of electronic versions of materials that students have found useful in studying for qualifying exams, including past exam problems, equation sheets and lecture notes donated by students who have passed their qualifying exams.

11. Conclusion

GAME continues to function well in its third year. The organization serves as a forum for student leaders to work together toward improving the community within the mechanical engineering department. GAME is proud of its work on social and advocacy related issues, however it sees that there are areas for improvement. GAME looks forward to building upon its current level of success in the coming year to ensure that the MIT Mechanical Engineering department not only sets an academic standard of excellence, but also sets the quality of life standard of excellence for its graduate students.