

KCMQ: Knack Central at Macquarie University

Society Roadmap Meeting: 2012-06-21

Carl E. Svensson &

Adam J. Carmichael

Department of Engineering

Macquarie University

Sydney, Australia 2109

Email: carl.svensson@ieee.org

Email: adam.carmichael@ieee.org

Friday 6th July, 2012



**CHALLENGE
ACCEPTED**

Contents

1	4
1.1 Name and Acronym	5
1.1.1 Outcome	5
1.1.2 Other candidates	5
1.1.3 Action Items	6
1.2 Articles of Association	7
1.2.1 Action Items	7
1.3 Named positions And Role Descriptions	8
1.3.1 Outcome	8
1.3.2 Action Items	8
1.4 Committee & Reporting Structures	9
1.4.1 Outcome	9
1.5 Mission Statement	10
1.5.1 Outcome	10
1.5.2 Action items	10
1.6 Engineering Focusses	11
1.7 Outcome	11
1.8 Action Items	11
1.9 Activities	13
1.9.1 Outcome	14
1.10 Finances	17
1.10.1 Outcome	17

1.10.2 Action Items	17
1.11 Marketing	18
1.11.1 Outcome	18
1.11.2 Action Items	18
1.12 Group Partnerships	19
1.12.1 Outcome	19
1.12.2 Action Items	19
1.13 IT & Communications Strategy	20
1.13.1 Resource Lists	20
1.13.2 Action Items	20
1.14 Membership	22
1.14.1 Outcome	22
1.14.2 Action Items	24

Chapter 1

This page is intentionally left blank.

1.1 Name and Acronym

1.1.1 Outcome

KCMQ: Knack Central Macquarie University. The mission statement and many engineering themes revolve around *knack*, and so we felt reflecting this in the name would be a good thing to tie in with the overall branding. It is also partly humorous, the Dilbert episode “The Knack”.

Logo needs to be a simple vector of some description involving at most 4 colours, but multiple tones of colour are permissible. This is to keep printing costs down, and to make the logo recognisable.

Logo concepts include circuitry and tools to form letters for the acronym “KCMQ” with the motto being: “Engineering Motto: Challenge Accepted”.

1.1.2 Other candidates

MESS: Macquarie Engineering Student Society

MESS: Macquarie Engineering and Science Society

MES: Macquarie Engineering Society

SAME: Students At Macquarie in Engineering

EMU: Engineers/Engineering at Macquarie University

E=MQ²: Engineers/Engineering at Macquarie University

TEAM: The Engineers At Macquarie University

MATE: Macquarie And The Engineers

MEAL:

LAME:

MEAT:

MEME:

MEAD:

1.1.3 Action Items

- Seek objectors to name.

1.2 Articles of Association

1.2.1 Action Items

- Form articles of association document
- Modify charter (requires separate meeting)
- Get 15 students to sign up to join
- Determine initial committee and named office bearers
- Formalize branding

1.3 Named positions And Role Descriptions

1.3.1 Outcome

Structure will be a 3 tier system.

Office Bearing Positions on Committee Several named positions will bear an office and title.

Chief - Executive office bearing position. Equivalent to a President of a society in function.

First Assistant Engineer - Executive office bearing position. Equivalent to a secretary in function.

Second Assistant Engineer - Executive office bearing position. Equivalent to a treasurer in function.

QMED - Marketing - Office bearing position. QMED stands for "Qualified Member of the Engine Department".

QMED - Activities - Office bearing position.

QMED - Partnerships - Office bearing position.

QMED - PAL/Education - Office bearing position.

QMED - Memberships - Office bearing position.

QMED - IT & Communications - Office bearing position.

Fitter These are committee members with nonspecific functions. Required for committee meetings (voting), and to fill in for office bearing positions as needed.

General Members (most people will fit into this category).

Executive committee members are the three members of the committee who are responsible for the society to MUSRA. For example, they are the three nominated signatories responsible for paperwork to MUSRA in the "boot sequence" for the society.

1.3.2 Action Items

- Need to outline out the responsibilities of each role in greater detail.

1.4 Committee & Reporting Structures

1.4.1 Outcome

- Committee structure has been outlined in further detail in section 1.3, [Named positions And Role Descriptions](#) on page 8.
- Reporting
 - Attendance at events & activities
 - Membership roster is handled well by Google Docs spreadsheet
 - The executive to report to MUSRA, primary responsibility is to the Secretary, however, the Secretary may call upon assistance in reporting.
 - Annual club report to be compiled by Chief and Treasurer to be distributed to club members via the website.
 - Newsletter is a possibility, needs a dedicated committee member.

1.5 Mission Statement

1.5.1 Outcome

Carl (predominantly) drafted a mission statement which reads as:

Furthing the enrichment and application of 'knack' through a rich variety of learning, social, and challenging activities for engineering (and like minded) folk at Macquarie University.

'knack' is to be linked to the famous¹ Dilbert video wherever possible where the Garbage Man defines 'knack' to be:

a rare condition characterized by an extreme intuition about all things mechanical and electrical...and utter social ineptitude.

1.5.2 Action items

While we are largely happy with the mission statement as is, we are going to allow ourselves more time to let creative juices mold it a little more (if they are flowing).

Also, peer review the mission statement before finalizing.

¹infamous?

1.6 Engineering Focusses

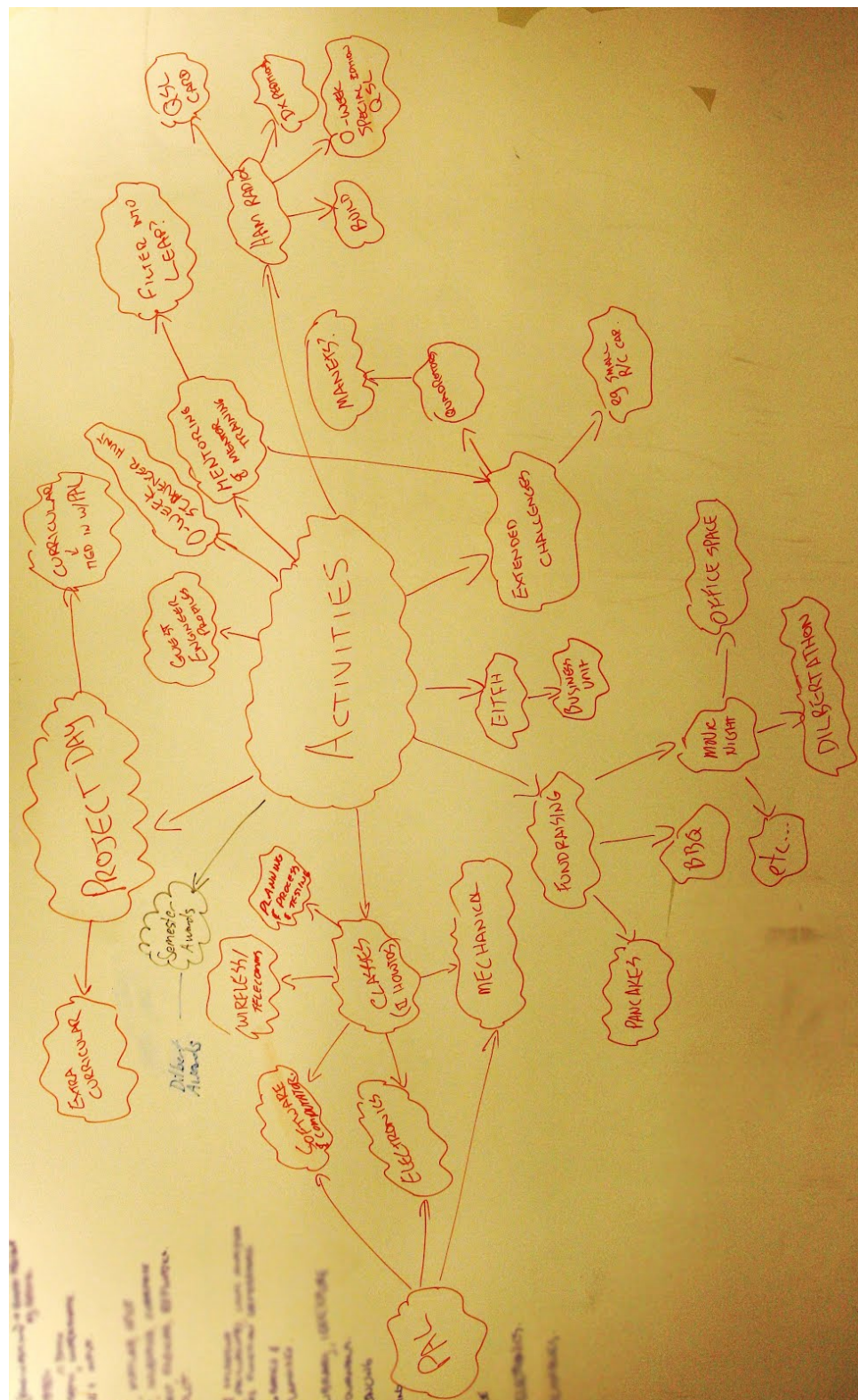
1.7 Outcome

- Amateur Radio
- MANETS - Mobile Ad-hoc Networks
- Robotics & Mechatronics
- Embedded Computing
- Learning tools and techniques
- Applying Electronics
- PAL - Peer Assisted Learning
- Weekly Challenges
- Parent Student Body for Engineers
- Social activities
- Guest lecturers
- EWB Challenge
- Engineering Mentors

1.8 Action Items

...

1.9 Activities



1.9.1 Outcome

While the possible activities is large and varied, we have identified the following core areas:

- Guest Lecturers (possibly professional engineer profiles)
- Classes (seminars and workshops)
- Project Days
- PAL
- Fundraisers
- Mentoring
- Amateur Radio
- Social Get togethers (Weekly)
- Start of year Engineering Induction with Dept of Engineering
- End of Semester Event (with awards)
- TEDx Macquarie

Classes

Classes are a large area of involvement where we would run lectures, seminars and workshops on areas of interest, some of these are as follows:

- Presentation - how to present yourself (eg resume, give talks etc)
- \LaTeX and BiBTeX
- Maths workshops geared towards engineering. (Need Mike's input)
- Software Tools
 - AWR
 - MATLAB
 - SPICE
 - OPNET

- Inventor
 - Enterprise Architect
 - EndNote
 - Refworks
 - GNUPLOT
- UML
- Lab Equipment
 - Use of equipment
 - Soldering
 - Multimeter
 - Oscilloscopes
 - Logic Analyser
 - Power Supplied
 - Function Generator
- Engineering Logbooks, processes and planning (howtos)
- How to use resources (eg library, IEEEExplore, Journals)
- How to do referencing properly
- Embedded Computing
 - Introduction (eg Arduino)
 - Feedback Controls
- EWB Challenge
- Funway Into Electronics
- Exam Preparation Techniques

Social

Social activities are also widely varied. Some options open to us:

- Weekly meeting at the bar or coffee shop.
- Pancake / BBQ
- Movie Night
- Amateur Radio Days (in association with MQARC)

PAL

PAL (Peer Assisted Learning) is an initiative that Mike Heimlich has tried to promote where by students assist each other in learning about engineering. It has predominantly focused on maths, however there is no reason it cannot broaden itself to general engineering principles such as use of lab equipment, whiteboards, and desk space.

It would provide a place for learning through open exploration of ideas with peers.

1.10 Finances

1.10.1 Outcome

Several ideas were presented throughout the meeting at various stages, however the finances were never specifically addressed. The ideas which cropped up that could be potential revenue streams:

- Pancakes
- BBQ
- Movie Nights with gold coin donation
- Class tutorials, workshops and other activities which bear a small charge for non-members.

1.10.2 Action Items

- Determine income and revenue strategies. Past experience tells us we cannot rely on MUSRA alone.

1.11 Marketing

1.11.1 Outcome

- Weekly meeting at bar or coffee shop (social activity)
- At events
 - Stalls at big events like O-Week
 - Partnerships with other groups
- Advertise in the IEEE SB Newsletter
- Electronic Billboards
- “Robots have feelings too” or a Wall-e at Wally’s Walk to raise awareness and get signups.
- Pancake stand (& engineering coffee display)
- Astronomy & physics societies co-hosted stuffs (TBD)
- “Captain Plan It?”
- Engineering Induction
- Branding, usage and templates.

1.11.2 Action Items

- Choose a marketing person.

1.12 Group Partnerships

1.12.1 Outcome

Largely documented throughout other sections of this document. Summary is that there are potential partnerships with several societies on campus:

- IEEE Student Branch (not affiliated with MUSRA)
- Astronomy / Physics Society
- FIRST Alumni
- The following groups are not student societies, but industry partnerships exist with various departments and the university itself:
 - APESMA
 - Engineers Australia
 - Engineers Without Borders
- The following groups are not student societies, but various departments that could potentially support the society with logistical help.
 - Dept of Engineering
 - Dept of Computing
 - Dept of Physics
 - Dept of Astronomy
 - Dept of Chemistry

1.12.2 Action Items

- Each partnership is a potential opportunity. Need to identify what that opportunity actually yields and what goals could be achieved
- Need to identify contacts within each partnership.
- Need to identify potential weaknesses
- Overall SWOT analysis.

1.13 IT & Communications Strategy

1.13.1 Resource Lists

The only real area of IT & Communications discussed was that of a list of resources. It currently includes

- Lab Equipment
 - Host copies of the manuals (should copyright permit)
 - KCMQ Activity worksheets
 - KCMQ Quickstart Guides
 - KCMQ Howto manuals
- Setup Guides for software.
- Links to past papers
- Engineering Survival Guide
 - Email addresses
 - Websites
 - Student Support (eg counselling)
 - Numeracy Centre
- Support videos (eg Kahn Academy)
- List of Engineering Research Groups
- Lecture Notes (from both staff and students)

1.13.2 Action Items

This was not looked into as it requires significant amount of time to think about, as well as other details to be finalised such as resources.

- Website / social media
- Newsletter

- Membership Register
- Mailing list / forum
- Resource List

1.14 Membership

1.14.1 Outcome

List of Possible Members (Victims)

Professors, Lecturers and other non-student staff members:

- Sam Reisenfeld
- Graham Town
- Mike Heimlich
- Luan Heimlich
- Gangfa Feng
- Yinan Kong
- David (ELEC260)
- New Prof for Mechatronics Engineering
- Stephen Hanley
- Dom Verity
- Karu Esselle
- Dilshara Hill
- Carolyn Kennet
- Arun Neelakandan
- Darius Taslim
- Matt Cabanag

Postgrads:

- Sayed Ali
- Eahteshamul Hoque

- Susan Bruck
- Ayobami Igi
- Forrest Zhu
- Barry McDonald
- Carl Svensson
- Beeshanga Abewardana Jayawickrama
- Audrey Markowskei
- Mitch Buckley

Undergrads:

- Joseph Campbell
- Gitanjali Pradhananga
- Pierce Rixon
- Michael Griffin
- Zarin Saif
- Esther N
- Adam Carmichael
- Nathan Seal
- Nathaniel Hunt
- Tim Boye
- Mitch Gulliver
- Caroline MacDonald
- Gareth Richardson
- Joshua Larietti

- Tristan Allanson
- Rajika Kuruwita
- Michael Davies
- Adrian Kane
- Mat Fialkowski
- Chris Bagnall
- Chris Walker
- Sarah Heimlich
- Ben Mac
- Albert Chahine

1.14.2 Action Items

- Approach above personnel with invitations to join and form a group, and to request their help.
- Staff members need to be asked with personalized invitations, perhaps over a cup of coffee.
- Some students are earmarked for committee positions, these people need to be invited specifically once roles are determined kjl
- Do we charge a fee?