



IEEE Victorian Section Chair's Report on 2016

IEEE Victorian Section AGM

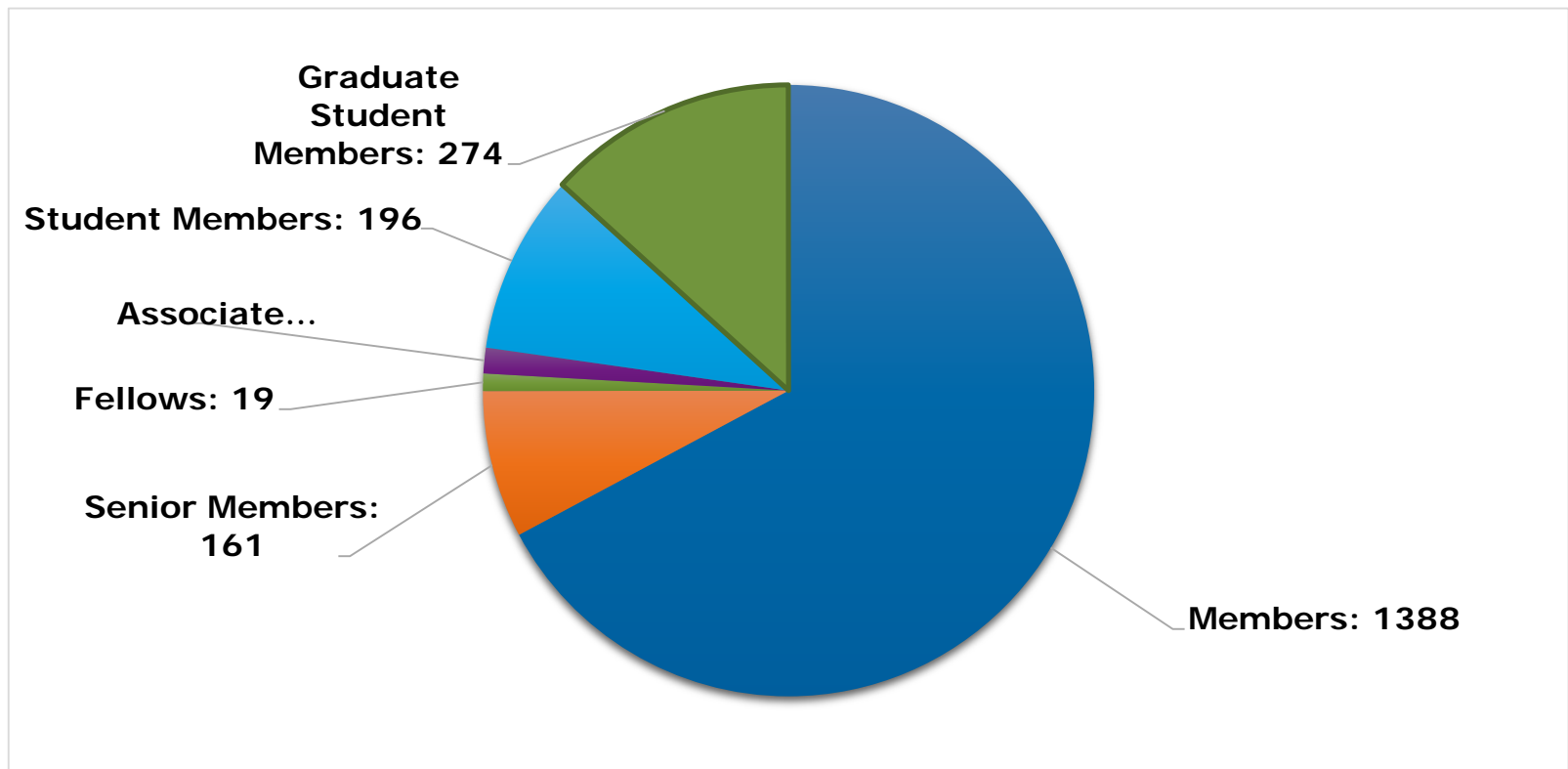
University of Melbourne Graduate House, December 8th 2016

Eddie Custovic, Chair



Membership Development

As at October 2016 the Victorian Section has 2066 members. The breakdown is as follows:

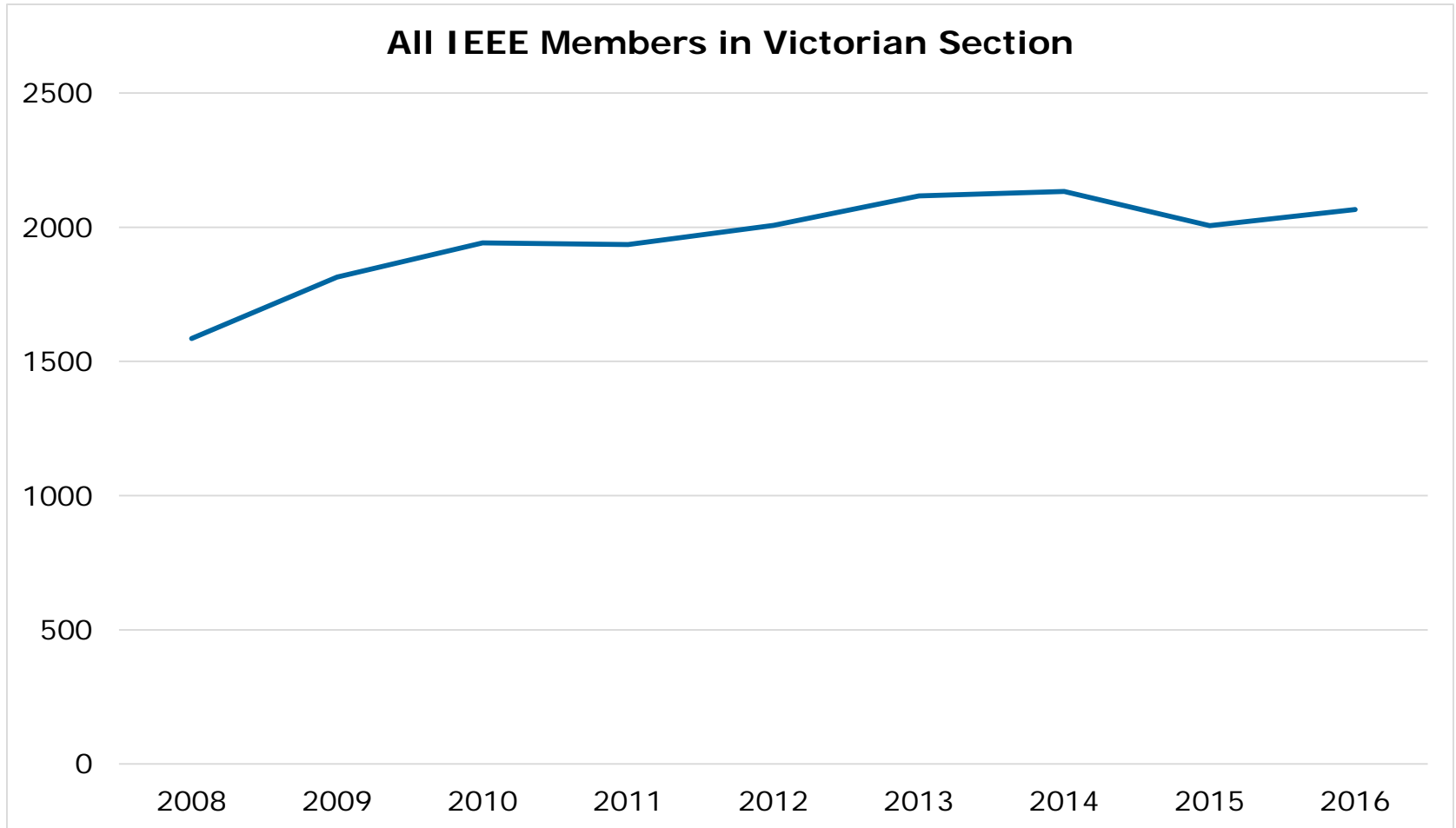


Membership Development



The decrease in associate members is perhaps expected.
The increase in Senior Members is encouraging.

Membership Development



Student Activities

- ▶ 2016 was a very successful year for student branches in Victoria with over 50 total events conducted. Collaborated events with affinity groups, chapters and other student branches.
- ▶ Melbourne and La Trobe have continued being strong student branches over the past few years
- ▶ Monash and RMIT shown a rapid growth from the past years and ended the year as very active student branches
- ▶ Swinburne & Victoria Universities have become active and organized several events
- ▶ Student representatives from 4 Universities (Melbourne, Monash, RMIT & La Trobe) attended Region 10 SYWLM congress held in India
- ▶ University of Melbourne has won Outstanding Student Branch award (2015) and Region 10 Exemplary Student Branch award (2016)

IEEE Skill and Knowledge Exchange Roadmap

- IEEE Student Branches in Victorian Section organized a series of technical workshops at different Universities throughout 2016
- 54 IEEE student members registered for the workshops.
- Total revenue of AUD 1100 was received from registration and net profit of AUD 500 was generated

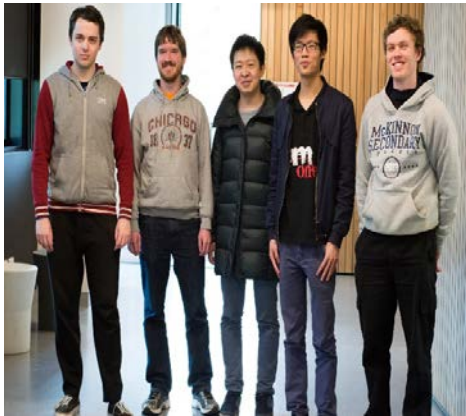


Workshop	Location
Solidworks	La Trobe University
Android	Monash University
Python	University of Melbourne
C++ Programming	RMIT University
MATLAB	Swinburne University



IEEEXTREME 10.0 Competition

- ▶ This year we had the best results and the maximum participation from Victorian Section for an IEEEXTREME competition up to date
 - A total of 56 students and 20 teams
 - Global rankings 4 & 5. 4 Teams within top 100. 13 teams within top 500



IEEE Promotional Campaigns at Universities

- Several Universities promoted IEEE during open-day programs, orientation week's and on the IEEE day.
- La Trobe and Melbourne Universities organized annual networking events



Young Professionals

2016 was an exciting year for Victorian Young Professionals (YP)

On the 4th of May, YP team organised an interactive talk on Cloud Technology and Career pathways, conducted by Mr. Mobeen Malik, an IT Manager from Accenture Australia, held at University of Melbourne.



Young Professionals

On the 30th July 2016, YP team collaborated with RMIT student branch, and visited LaTrobe Valley Coal mine.

In this program the participants got the opportunity to visit and learn about the coal power energy industry in LaTrobe Valley in Victoria. This event was funded by region 10 power & energy society young professionals activity grant.

A bus carrying 22 undergraduate, postgraduate students and young professionals travelled 150 km for 1.45 hours to regional Victoria to get this amazing experience.



Young Professionals

On the 11th August 2016, YP team with Monash student branch, organised a talk “Get employed and thrive in Construction, Mining and resource sector” for electrical, mechanical and construction engineering students, at Monash University, Clayton. Guest speakers Tom Scash, Director, Training Ahead Australia, and Wes Malek, founder and owner of ECM Group, carried out the presentations, discussions and Q/A session.

Following the event, 600 AUD valued training reward was presented by training ahead Australia, to a chosen student.



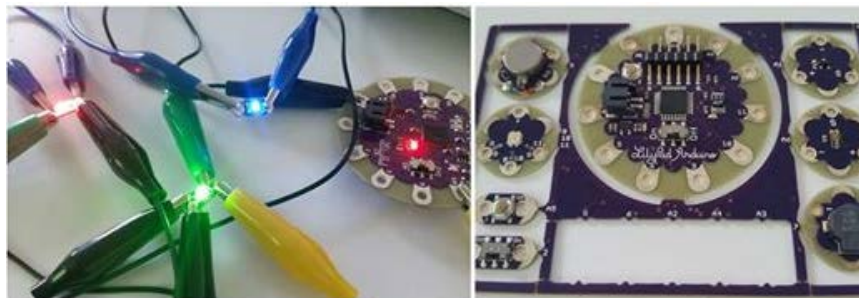
Young Professionals

On the 27th October 2016 we organised an interactive talk “What do you fear most Death, Taxes or Public Speaking?”, which was funded by IEEE region 10 activity grant. This event was predominantly organised for recent graduates and young professionals in Victoria region, as an opportunity to learn from an expert on how to become more confident when speaking in Public.



Technical Activities

- Over 70 high valuable technical events run by our societies
- Construction and the Cloud
- Google AdMob Challenge
- What is 5G, and when will it arrive?
- Fluorescent Nanoparticles for Biosensing and Biomedical Applications
- Workshop/Tutorial: EMC Essentials - from Grassroots to Advanced Design and Diagnostics
- Internet-of-Things (IoT), Embedded Systems and Arduino Revolution
- IEEE Distinguished Lecturer - Prof. Othman - WIMAX Networks
- Employment in Construction, Mining and Resource Sector
- Blind Source Separation: from basic concepts to new challenges
- Overseas Qualified Engineers: How to Help Yourself Get That Job
- Mobil Oil - Energy Thought Leaders Series
- Energy Harvesting for Sensor Networks
- IEEE YP Chapter: "What do you fear most Death, Taxes or Public Speaking?" by David J. Earley, Managing Director at SME Insurance Professionals Pty Limited
- IEEE Victorian Section, Computational Intelligence Chapter, "Niches of Population - based Optimisation Algorithms in Practice", Prof. Kalyanmoy Deb, Chair Professor at Department of Electrical and Computer Engineering in Michigan State University, USA
- IEEE Victorian Section, Computational Intelligence Chapter, "Research Topics on Evolutionary Objective Optimization", Prof. Hisao Ishibuchi
- Hearing Focused E-sewing/ Wearable Technology Hackathon



www.ieeevic.org

IEEE VICTORIAN SECTION STUDENT BRANCHES
SKILLS AND KNOWLEDGE EXCHANGE ROAD MAP

> \$25 for all workshops (+ IEEE student membership)
 > Boost your career with specialized skills
 > Meet other volunteers from other universities
 > Certificate for each workshop attended
 > Special certificate for attending all workshops

Events:
 La Trobe - June - Solidworks
 Monash - June - Android
 Deakin - July - 3D printing
 RMIT - September - C++
 + 3 more TBA

SOLIDWORKS WORKSHOP

with
Adam Console
 BEng (Electronics)/Hons (La Trobe University)
 MEng (Biomedical)/La Trobe University

Thursday 2nd June
 6:30pm to 9:00pm
 La Trobe University
 Register With: Joshua Milward
 Milward.joshua@latrobe.edu.au
 More info: esou@latrobe.edu.au

ABOUT SOLIDWORKS
 Solidworks is a robust 3D mechanical CAD program. It is currently used by over 1.3 million engineers and designers at more than 130,000 companies worldwide. This 3 hour tutorial will aim to introduce engineers of all disciplines how Solidworks can aid in the prototyping of most projects. Attendees will get the opportunity to design and render 3D objects.

ABOUT PRESENTER
 Mr Adam Console is currently an associate lecturer in the Department of EE, La Trobe University. His research interests are in acquisition and processing of bioelectric and other physiological signals, electrical impedance tomography, real-time image reconstruction techniques, and HF RADAR design. His expertise in Solidworks has been crucial in the mechanical design of the phased antenna array being constructed at the Buckland Park radar site near Adelaide.

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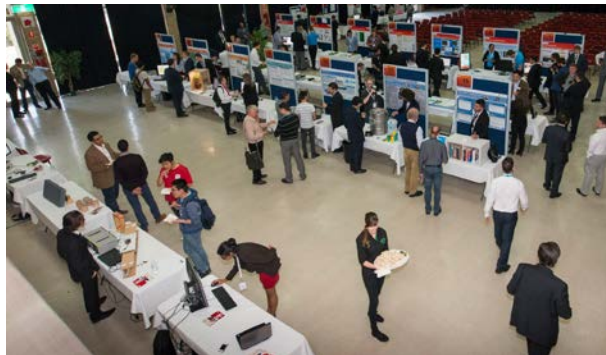
NOTE: This is a non-commercial event. All proceeds will be donated to the IEEE Victorian Section Student Branches.

Community Engagement

Networking events such as the IEEE & Melbourne Convention Bureau Cocktail reception. This was an evening of networking to learn about the Section's future direction, strategies regarding conferences and conference organisation.



Other Community Engagement Activities



IEEE
VICTORIAN
SECTION
AUSTRALIA

www.ieeevic.org

**IEEE Victorian Section
Student & Young Professional
Internship & Career Development Program**

"Supercharge your career - Standout in the Crowd"

 6th September 2016 Mr. Chris Smith, Telstra Recruitment Methodology What companies are looking in graduates Tips to get through first recruitment stages	WORKSHOP 1 5:30 - 8:30 PM Level 20 Board Room 360-Collins Street La Trobe University
 9th September 2016 A. Prof. Elspeth McKay, Fellow ACS How to highlight essential skills How to prepare outstanding resumes Tips for writing Cover Letters	WORKSHOP 2 5:30 - 8:30 PM Building 80 Level 9 Room 12 445-Swanston Street RMIT University
 12th September 2016 Mr. Sunil Abraham, Indian Oil Corporation Insights into ethical & corporate behaviour How to begin an industrial career How to excel in initial days of career Professional Values	WORKSHOP 3 5:30 - 8:30 PM Level 5 Richard Newton Room IEEE Building University of Melbourne

Registration Deadline Friday 2nd September **Register**

Receive IEEE Victorian Section Certification for successfully completing all three workshops
Get shortlisted for internships and job opportunities

Career Expo

2000 attendees had the opportunity to network with **22 companies**, professional bodies and non for profits in the engineering & IT sector throughout the day



METROEXPRESS

Edition 38 || 23 September 2016

Metro @ Engineering & IT Careers Expo

SPECIAL EVENTS

Metro has this week joined over 20 companies at the 2016 Victorian Engineering & IT Careers Expo held at the State Library of Victoria.

The event promotes employment opportunities in engineering and IT, while also celebrating excellence and advocating the importance of leadership in engineering.

The Metro team – comprising

Rebecca Christianson, Etienne Chevaux, Andrew Russack, David Austin, Samala Golle, Sandra Chelliah and Sisi Ying – was on hand to answer student questions about an engineering or IT career with Metro.

Etienne said the expo was a big success.

"We got a lot of traction from undergraduates, graduates and even experienced engineers/ICT professionals," he said.

"Opportunities like this allow us to promote the diverse careers Metro offers. It was fantastic to see the level of interest in a career in rail," Etienne said.

The event is the first joint career expo between Engineers Australia (EA), the Institute of Electrical Electronic Engineers (IEEE), the Institute of Engineering and Technology (IET) and La Trobe University.



With compliments...

I feel compelled to highlight the wonderful treatment my son and I received on the weekend from a Metro train driver. On Saturday, I took my train-obsessed 2 year-old son from Greensborough to Denis Station on the train and back. At each station as the trains approached the platform, my son would wave at the driver on their arrival and each time they responded in kind. At our final destination of Greensborough, your driver even sounded the horn, making my son extremely excited in the process. Hats off driver, you made our day!

METROEXPRESS

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Industry engagement



- Boojum
- PhiCom
- Spiral Systems
- ZodiCom
- AmpWest Communications
- BXP Consulting
- 4P Consulting



Australian Government
Department of Defence
Defence Science and
Technology Organisation



Awards and nominations

Global Awards:

- Outstanding Section Membership Recruitment and Retention Performance (2016)
- WIE Affinity Group of the Year Award (2015) – WIE Victorian Section
- Richard Merwin Scholarship from IEEE Computer Society (2016) – Gitansh Khirbat

Region 10 Awards:

- WIE Outstanding Professional Volunteer Award: (2016) – Mehrnaz Shoushtarian
- IEEE Regional Exemplary Student Branch Award (2016) – University of Melbourne Student Branch

Australian Council Awards:

- Outstanding Student Branch in Australia Council Award (2015) – University of Melbourne Student Branch

Victorian Section Awards:

- Outstanding Student Branch Award (2015) - University of Melbourne Student Branch
- Student Paper Competition Award (2016)
- First place awarded to Saman Asghari Gorji (Swinburne University) with paper "Galvanically Isolated Quasi Switched-Boost-Based DC/DC Converter"
- Second place awarded to Safiollah Heidari for the paper titled "iGiraph: A Cost-efficient Framework for Processing Large-scale Graphs on Public Clouds"

Merchandise

Merchandise

You can now purchase IEEE Victorian Section merchandise from our website. On offer are waterproof winter vests. The vests have the IEEE masterbrand on one side and the IEEE Victorian Section logo on the other (click on gallery for details). The vest are unisex.

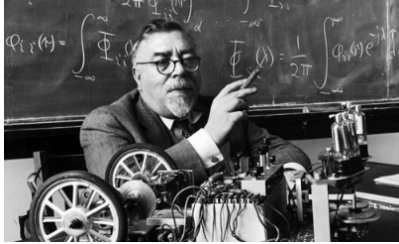


Sizes available: Small (S), Medium (M), Large (L), Extra Large (XL)

Material: Fabric: 90gsm – Outer – 100% Nylon. Filling & Lining – 100% Polyester.

Cost IEEE student members: \$40 IEEE non student members: \$50

Conferences



Society for the Social Implications of Technology (SSIT). “Thinking Machines in the Physical World” (IEEE 2016 Conference on Norbert Wiener in the 21st Century), University of Melbourne. Keynote speakers, and greetings from Professor Graeme Clark, AC Laureate Professor Emeritus, leader in pioneering cochlear implant research

INNOVATIVE SMART GRID TECHNOLOGIES



30 Nov- 3 December 2016.

International Conference on Advanced Mechatronic Systems (ICAMechS 2016) will be held in Melbourne, Australia on November 30 - December 3, 2016. The event is sponsored by International Journal of Advanced Mechatronic Systems (IJAMechS), Swinburne University of Technology, IEEE Systems, Man, and Cybernetics Society. More information <http://web.tuat.ac.jp/~deng/icamechs2016/icamechs2016.html>

29 Nov – 2 Dec 2016.

Australian National Human-Computer Interaction Conference (OzCHI2016) . OzCHI is the Australia's leading forum for the latest in HCI research and practice. OzCHI attracts a broad international community of researchers, industry practitioners, academics and students. Participants come from a range of backgrounds, including interface designers, user experience (UX) practitioners, information architects, software engineers, human factors experts, information systems analysts and social scientists. The conference theme is Connected Futures, highlighting the importance of connectedness through technology. <http://www.ozchi.org/2016/>

14-17 February 2016.

IEEE ICM (International Conference on Mechatronics), Gippsland, Victoria, Australia. The conference will be sponsored by the IEEE Power and Energy Society and the IEEE Victoria, Australia Section, and hosted by the Federation University. More information : <http://ieee-icm2017.org/>

Strategic Planning Meeting 23rd of February

The purpose was to get members to brainstorm and develop a strategic plan for running high value activities that would become the premium product of the IEEE Victorian Section. In addition to this, one of the goals of these events was to generate income for the section.

The main outcome from the meeting was organizing the Skills and Knowledge Exchange Roadmap (technical workshops) and the Employability Workshops



Strategic Planning Meeting 27th of September

The purpose was to find the best practices around the world in terms of sections, chapters, student branches and members retention. Some of these will be implemented for 2017:

- Information about awards; list of consultants on the IEEE page;
- Entrepreneurs' Network Affinity Group and Consultants Network Affinity Group;
- More exposure to the media;
- To create summer schools for MS and PhD students, and also to give them the chance to request talk topics (and even to suggest certain speakers).

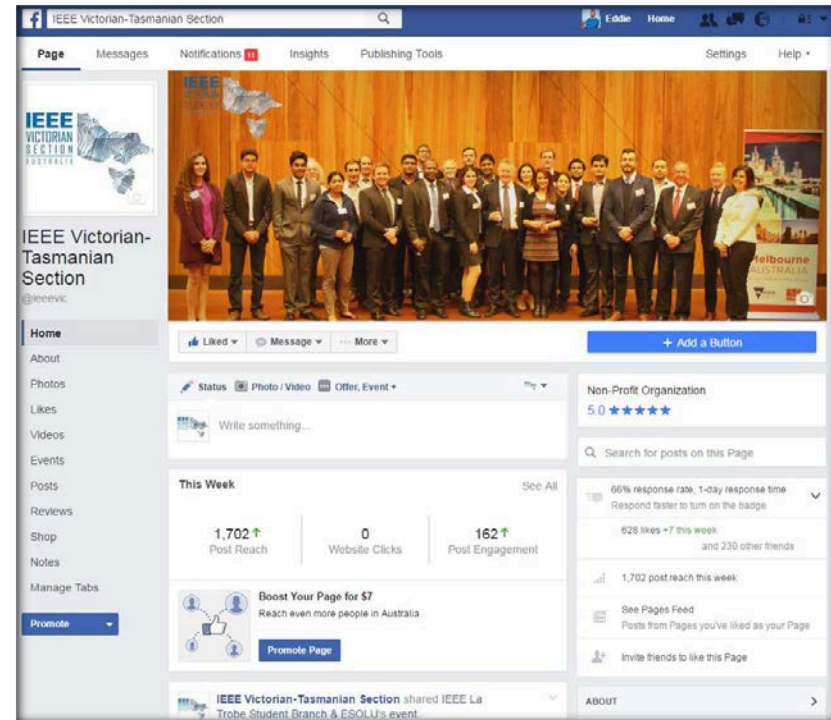
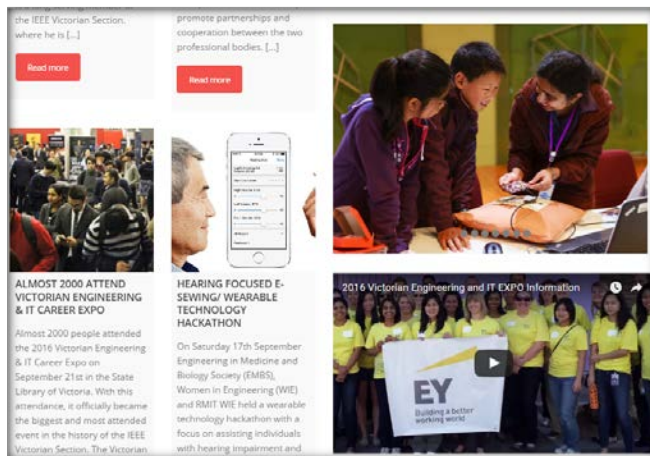


Website and media

We launched our social media strategy this year

Over 100 000 unique impressions throughout the year in our social media:

- ▶ Web page
- ▶ LinkedIn
- ▶ Facebook
- ▶ Twitter



2017



► President of IEEE

14-18 August, Melbourne

Industry Engagement



Sydney 11-13 August



I change the world. I am an Engineer

Thank you very much!