We always enjoy the opportunity to connect with our alumni. Alumni form after all the most significant part of our community. It is our pleasure to continue to engage with you throughout your professional lives. The Melbourne School of Engineering has a tremendous legacy of impact not in the least through the achievements of its alumni. We all can take pride in the achievements of the School and its alumni.

Looking towards the future, the School has identified a number of priorities to help us build on this important legacy. A key element to maintain and to enhance our reputation in an increasingly international environment is to ensure that the School has both sufficient breadth as well as depth across engineering and IT. Size matters in the international context.

Going forward, our research efforts contribute to three broad themes: the optimisation of resources and infrastructure to enhance resilience and sustainability of our society; the role of networks and data in society; and the convergence of engineering and ICT with the life sciences. Initiatives such as the Centre for Disaster Management and Public Safety profiled within these pages demonstrate how we presently contribute in these key areas.

Continuing and deepening our engagement with industry is another important focus of the School. This ensures our graduates are ready for immediate entry and success within the workforce and gives us all the opportunity to pursue innovation that would otherwise be out of reach.

Finally, my thanks to each and every one of our alumni and friends who have supported the School’s priorities through Believe – the Campaign for the University of Melbourne. Our community of donors makes a real difference to the School. Most recently, the commitment from the Clifford family to support the Centre for Neural Engineering is an outstanding act of generosity and we are grateful for their leadership and support.
Feeling the heat
FROM PAGE 1

responding to, recovering from, and mitigating against these incidents.”

CDMPS researchers work across disciplines, addressing a range of critical areas:

- Understanding natural disasters
- Improving strategic decision-making during periods of high stress
- The application of new technologies to disaster management
- Building community resilience to reduce the impact of disasters
- Effective mission critical communications
- Effective disaster management policy.

The Centre’s Manager, Ged Griffin, said a series of major inquiries into disasters including the Black Saturday bushfires, Queensland floods and Tasmanian fires, had issued repeated recommendations for a more coordinated approach to research and training in disaster management.

“There was seen to be a demonstrated need to establish a dedicated Centre for Disaster Management and Public Safety,” he said.

CDMPS researcher Dr Katie Potts (BGeomE 2010, PhD 2014) said that industry and government partners were able to help shape the Centre’s research from the earliest stages.

“This means that when we are developing projects and submitting grant applications, the project is informed by an identified need from industry, and our research is addressing a real problem.”

Research Advisor for the Centre, David Williams, formerly of Victoria Police, said that the number of industry participants meant that research was grounded in the real world. At the same time, partners benefit from access to the latest interdisciplinary research and training.

The CDMPS is now developing a unique Masters program in Disaster Management, to train future practitioners in this increasingly important sector.

The Centre is also developing an international research portal, through which academics working in disaster management and public safety around the world can connect and facilitate cross-disciplinary collaboration.

During 2015, the CDMPS will be laying the groundwork for its future operations, formalising new national and international partnerships and coordinating a number of international workshops in Chile, Japan and China.

More information cdmps.org.au

Shine Technologies Co-founder giving back

ALUMNUS PROFILE MARK JOHNSON BE Hons (Mechanical) 1991

 Alumni Mark Johnson is hoping to help improve access to educational opportunities for students who may not otherwise be able to pursue their dreams. Mark is Co-founder and Principal of Melbourne-based Shine Technologies, a successful digital consultancy that has worked on high-profile software projects for major clients such as Coles, Energy Australia and NAB.

Yet it is his interest in philanthropy that has seen Mark and his wife support scholarship efforts at the Melbourne School of Engineering, and primary and secondary educational opportunities for disadvantaged children via The Smith Family, as well as a number of environmental causes.

“My wife and I are both very conscious that we have been very lucky with the education our parents provided for us, and we are at a point where we can give back,” Mark said.

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“My wife and I are both very conscious that we have been very lucky with the education our parents provided for us, and we are at a point where we can give back, which is why we are taking that opportunity with our involvement with the University of Melbourne and The Smith Family,” Mark said.

“"We are very focussed on education as an effective way to improve people’s lives.”

Mark said that he was particularly compelled to support scholarship efforts at the Melbourne School of Engineering because he believed there should be a greater focus on science and engineering in our society, and increased rates of participation for female engineers and technology professionals.

"I think Australia is well placed to be a leader as a clever country. In order to do that, I think we need more engineers and more people who can work in the area of science and technology," he said.

"In terms of the scholarship support, it is certainly our hope that we can make that education available to everyone, not just the people who can afford it."

Mark completed his Bachelor of Engineering with Honours (Mechanical) in 1991, moving immediately into a graduate role at Andersen Consulting, which became Accenture. At Andersen, Mark met his soon-to-be business partner, Adam Kierce, and after travelling overseas, the pair began to devise plans to launch their own consultancy, Shine Technologies.

"It was a good time for us. We didn’t have kids at that stage, so there was not as much to lose," he said.
“I would like to say that we had a great business plan, but we just thought we knew what we were doing and backed ourselves. We also got the timing right, as it was a growth period in the IT industry.”

“I think Australia is well placed to be a leader as a clever country. In order to do that, I think we need more engineers and more people who can work in the area of science and technology.”

The decision to launch the company in 1998 was certainly a positive one for Mark and Adam. Shine Technologies now employs over 70 staff in its Melbourne office and the company’s energy software products are used by the majority of Australia’s energy industry. Recently they have also launched a rapidly growing team sports platform, TeamStuff.com.

Mark said that the most valuable lesson he had taken from his time at the University of Melbourne was an understanding of how to learn, a skill that has stood him in good stead throughout his career.

“This has been an especially useful skill for working in a consulting role, where you have to pick up new technologies and processes very quickly.”

Outside of his business interests, Mark has been supportive of a number of environmental organisations, including his work as a Director of the Sea Turtle Foundation, which he said prompted his interest because it offered a completely different set of problems to those that he deals with on a day-to-day basis.

“I find it really interesting to be involved with an ecological group and working with the scientists there who are dealing with some very big issues. Sea turtles are a litmus test for the health of the environment. The work of the Sea Turtle Foundation also has aspects related to global warming and other issues that I’m interested in.”
In 2013, Melissa Louey completed a Master of Engineering (Biomedical) after studying a Bachelor of Biomedicine majoring in bioengineering systems at the University of Melbourne.

Today, Melissa works as a Gait Analysis Engineer at the Royal Children's Hospital in Melbourne. Typically, Melissa works with children experiencing difficulties with their functional mobility, such as those with cerebral palsy. Cerebral palsy is an umbrella term for people with disabilities that affect movement and posture caused by damage or dysfunction to the developing brain. Cerebral palsy may affect muscle control, coordination and balance, often causing unsteadiness and an increased likelihood of falls.

Melissa said that by using computational models to study how a child walks in the gait laboratory, a team of medical and allied health professionals can better understand the movement disorder of individual patients. “These computational models guide the team toward establishing an effective treatment plan,” Melissa said.

Another project that she has been working on involves enhancing how the foot is currently modelled. “I am trying to encapsulate more of the clinical features that can be found in foot deformities, to enable better clinical outcomes for patients,” she said.

When asked what her favourite part of her work was, Melissa said it is getting to hang out with the kids. “I feel inspired when I meet children, who have been through medical hardships, but can still demonstrate such happiness and resilience.”

Thanks to the generosity of the Melbourne School of Engineering’s donors, Melissa received a Master of Engineering Foundation Scholarship at the commencement of her studies with the School.