



fi

Book of finalists

2020 Asia-Pacific Awards on
Entrepreneurship and Engagement
Excellence in Higher Education

01 Institutions

Entrepreneurial University,
Engaged University and
Green University
of the Year

02 Individuals

Lifetime Achievement in
Entrepreneurship, Entrepre-
neurial Leader and Educator,
Engagement Leader,

03 Initiatives

Innovation & Collaboration Space,
Innovation Challenge, Innovation &
Entrepreneurship Support,
Community Engagement,
Student-driven Sustainability



Why is this book called “fi”?

“fi” stands for Finalist and “Fosterers of Impact”. fi defines a community of game changers striving to make Higher Education Institutions more entrepreneurial and engaged. fi represents the belief that universities are the engine of society and we, as part of them, have the privilege and the responsibility to drive change. fi encompasses the efforts, the struggles, the achievements and the lessons learned in the process of institutional transformation and societal impact.

As a book, fi showcases those institutions and individuals who have initiated and implemented change with an outstanding performance; leading the way forward. As a community, fi brings us together to sum actions and to shape the future of HEIs by being role models and igniters of change.

Message from the Award Chair

A warm welcome

Change is a constant and higher education is not the exception. Amazing changes are happening around the world in our institutions enhancing the impact and benefits to society. ACEEU aims to recognize and ignite those universities, individuals and initiatives that are leading the transformation towards a more inclusive and impactful university. That is how the Triple E Awards were born: to bring together a community of game changers.

The Triple E Awards are the very first attempt to recognize and celebrate the efforts made of such game changers in the field of higher education. This first version of the Awards focuses on the Asia-Pacific region, bringing together more than 50 institutions. Through a process of evaluation and revision, experts from around the world have carefully selected the entries that show excellence in entrepreneurship and engagement, at the same time is an inspiring and impactful example for others. This way, we aim not only to showcase the best initiatives but also to pave the way for others to join the movement.

This book features the finalists of the 2020 ACEEU Asia-Pacific Triple E Awards on Entrepreneurship and Engagement Excellence in Higher Education. It is a compilation of outstanding institutions, individuals and initiatives who have enhanced the role of universities in society.

The book is organized in 12 sections, each representing a category of the awards. We believe change is complex and multidimensional so we strive to capture as much as possible in those categories. Each finalist is presented on two pages. As we could not present all information in this book, we encourage you to use the QR codes provided to visit the Awards website and learn more about the individual entries.

We congratulate all those who have made it to the top 5. Being recognised as a leader also comes with a responsibility: to keep fostering change and enable others to learn from you, in your institution and beyond.

It was not an easy selection process as any initiative is worth celebrating. Therefore we encourage those who are on the transformation process to keep working, learn from others and join the community of game changers. We believe changes towards more impactful universities is possible as long as we make it together.

With kind regards

Thorsten Kliewe
Chair of ACEEU and the Triple E Awards

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Entrepreneurial University of the Year

Finalists

THE UNIVERSITY OF AUCKLAND

Achieve the amazing with the University of Auckland



Innovation and entrepreneurship have emerged as essential ingredients for responding to the world's economic and societal challenges and opportunities. The University of Auckland plays a pivotal role in entrepreneurship in New Zealand through its roles as an educator of graduates with entrepreneurial capabilities, and as a creator of knowledge and ideas addressing business and social issues, that stimulates the formation of new enterprises (commercial and social), and promotes innovation within existing firms and organisations.

In recent years the University has significantly increased its commitment to drive entrepreneurship at the University of Auckland and its community. While the University previously held isolated pockets of excellence in entrepreneurship, the new vision for the University is to have entrepreneurship as a core component of the University's identity and operations. In order to make

Impact Story



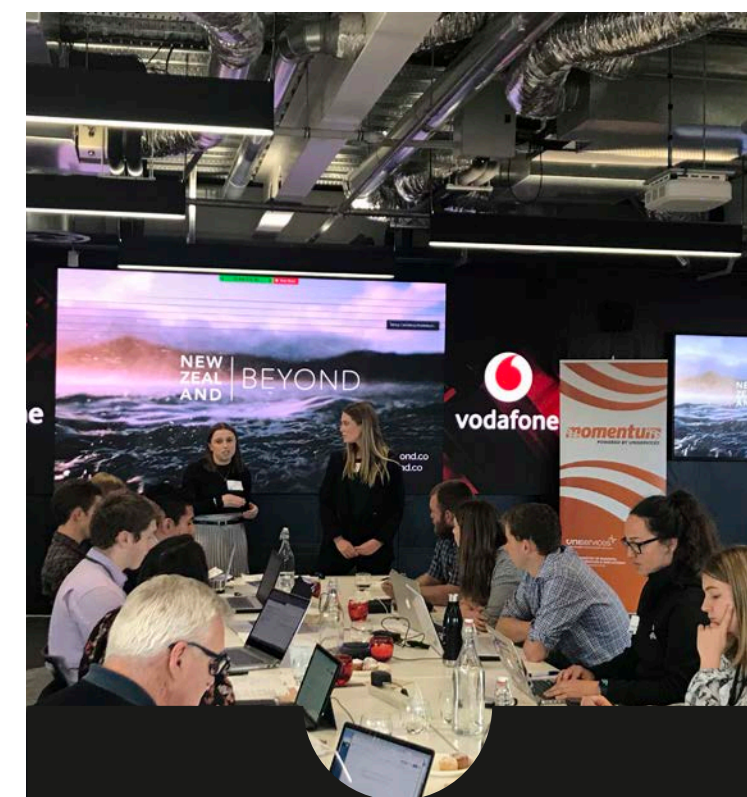
Arash Tayebi came to New Zealand as an international student to complete his PhD in electrical engineering. He says the university sparked an entrepreneurial spirit he didn't know he had. It inspired him to start a venture borne out of personal experience. Arash has a disease called Meniere's disease that resulted in him losing hearing in his left ear. He wants to help the deaf community by addressing the pain point of there not being enough teachers available who know sign language. Arash co-founded social enterprise Kara Technologies which uses artificial intelligence (AI) and digital humans to translate content into sign language. It uses AI and hyper-realistic avatars, with a particular emphasis on making educational material accessible for deaf children.

The founders of Kara Technologies were all students of the University of Auckland.



Key statistic

258 ventures begun by alumni



They participated in the Velocity entrepreneurship programme, winning the social entrepreneurship category of the \$100k challenge, took part in the University's six month VentureLab incubator programme and accessed many thousands of dollars of funding from UniServices as well as continued support and mentorship. The team are now alumni and continue to work on Kara full time. Arash says: "I was pretty shy to talk about this idea to change the way deaf people communicate. I thought I might be judged or called crazy. But at the University of Auckland there are people waiting for you to come and share your ideas. It's a place where you can grow very fast and be ready to change the planet."



**“LEADERSHIP MUST
RECOGNISE AND
BUILD ON THE AREAS
OF EXCELLENCE IN
ENTREPRENEURSHIP
AS A FOUNDATION TO
ADVANCE A HOLISTIC
ENTREPRENEURIAL
ECOSYSTEM INSIDE
AND OUTSIDE OF THE
UNIVERSITY”**

UNIVERSITY OF ADELAIDE

Innovation with intent Here and now

In early 2019, the University of Adelaide was ranked No. 1 for entrepreneurship education and engagement in Australia (Maritz, 2019), and the Adelaide Business School's research and education activities was instrumental to this ranking. Although other universities may claim to be entrepreneurial, none has the foundational and structural capacity of the University of Adelaide. We have a distinct entrepreneurial pedigree. The Universi-

ty is an influential stakeholder in the entrepreneurship ecosystem, creating graduates who are equipped with the dynamic skill-set required to thrive in today's employment landscape. We do this by developing entrepreneurial mindsets and skills through our entrepreneurship and innovation courses, both core and elective, across all disciplines at all levels of study. In addition, we provide platforms that supporting staff with their entrepreneurial endeavours. Furthermore, its influence is recognised regionally within South Australia, and internationally. Influence on both policy and practice is particularly evident in the progressive role the University has played over more than two decades. The University's strategic commitment to entrepreneurship began at its inception and has been an organisational cornerstone throughout its history as a disruptive and innovative institution. This commitment is evident in its strategy, leadership and operations. We have been a leader in our field, particularly with regard to incorporating entrepreneurship and innovation in our course design, research commercialisation, and community and business engagement. We were the first to appoint a Pro Vice Chancellor (Entrepreneurship) and continue to lead the way in entrepreneurship education and engagement.

What are employers looking for?

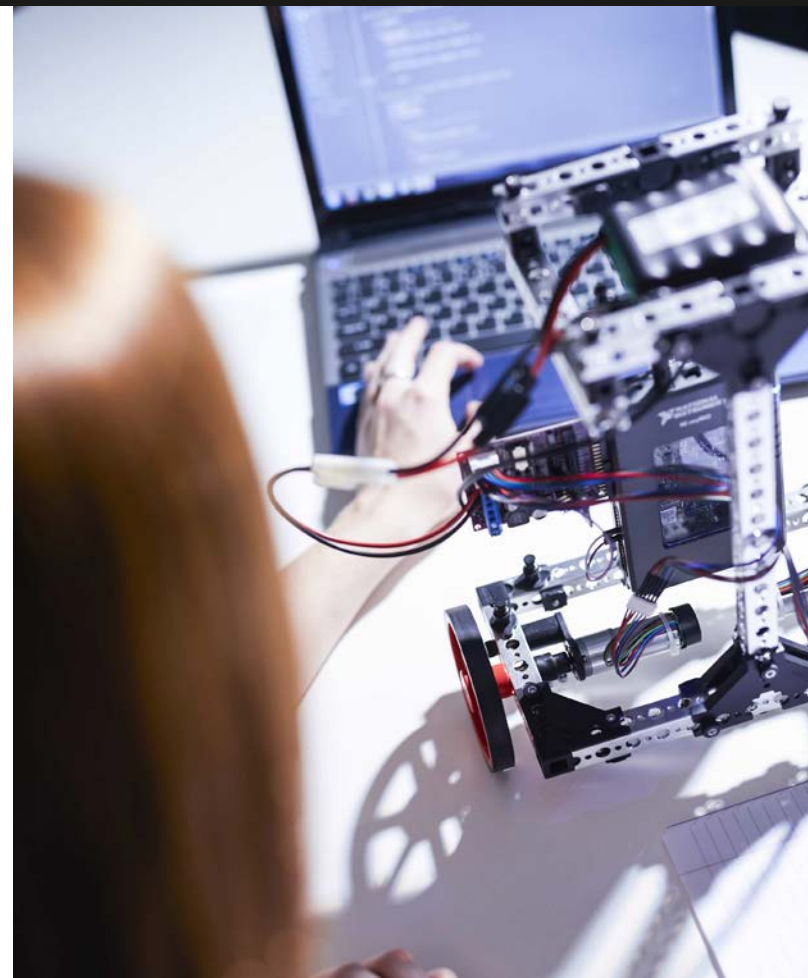


#1

Rank for entrepreneurship
education and engagement
in Australia

Impact story

The University of Adelaide has always been a leader in innovation and research that has made a difference to people's lives around the world. This culture of innovation has earned the University its reputation as a dynamic, forward-thinking and productive institution, with a wide range of industry and government clients. It has especially excelled at nurturing entrepreneurship through research commercialisation, and providing a safety net and support framework for start-ups. ByGen are a company that we have been thrilled to support from its very inception. During their PhD studies, Dr Lewis Dunnigan and Mr Ben Moreton developed a low cost and energy method for creating activated carbon, which has a number of applications across several industries. They formed a company and then embarked on a University-supported journey which saw them create a lab-scale plant, take part in accelerator programs, and take up residency in the University's ThincLab Waite incubator. We have been able to offer collaboration opportunities, provide a physical location for them to build prototypes, provide legal advice and support, and connect them with key people in their field. They are in the next phase of development, seeking further funds so that they can pursue opportunities in Australia and China. One of the rewarding elements of supporting ByGen, is the opportunity we've had to build personal relationships with Lewis and Ben. They have acted as mentors for new start-ups and entrepreneurs and have willingly volunteered to participate in and support their University and ThincLab communities in various ways.





“PROFIT COME AS A CONSEQUENCE BUT NOT THE GOAL. MSU IS ESTABLISHED TO PROVIDE ACCESSIBLE, AFFORDABLE AND SUSTAINABLE EDUCATION ECOSYSTEM WHERE QUALITY IS NOT COMPROMISE.”

MANAGEMENT & SCIENCE UNIVERSITY

Transforming Lives, Enriching Future.

Management & Science University (MSU), voted the Most Entrepreneurial University in Malaysia by the Ministry of Education, is committed to producing holistic, entrepreneurial and balanced graduates through an integrated entrepreneurship ecosystem. With a philosophy of Transforming Lives, Enriching Future, these commitments are embedded in the Vision and Mission Statements and the 10-Year Strategic Planning 2016-2025. MSU's long-term strategic focus on Employability, Entrepreneurship and Internationalisation leads to consistently highest graduate employability rate, respectable world rankings and ratings by QS and Time Higher Education and increasing commitment in students' entrepreneurship. Internationalization strategy saw the establishment of offshore campuses and international Learning Centres, 19 % international faculty members and international students from 41 countries. Within the medical education sector, MSU is the first private university that has its own teaching hospital in Malaysia. The holistic entrepreneurial development cuts across curriculum and is delivered via academic and experiential learning through Leadership & Entrepreneurship Advancement Institute (LEAD). The Jumpstart program

has attracted more than 200 start-ups and to further enhance entrepreneurial learning and practice, 22 live labs were provided. Performance-based culture is nurtured and monitored through TE23 Performance Dashboard system. Applied research towards commercialization with university and industry partners are rigorously pursued. Being an engaged university, MSU actively promotes Sustainable Development Goals projects with the communities. MSU Foundation was established where RM21 million worth of scholarships were disbursed to the underprivileged students and communities annually. MSU's presence within the community provides economic spill-over of a minimum of RM30 million of revenue to the business community.



■■■

“TO DRIVE AN INFRA-STRUCTURAL CHANGE, ONE MUST TOUCH THE “HOLY-GRAIL” OF THE ACADEMIA: EITHER RESEARCH OR EDUCATION.”

The most unique feature in TAU's Entrepreneurship Center (EC) is the fact that its curriculum and activities were developed and are offered to students of all disciplines as a part of their degree. Not as an add-on, not as a special program for outstanding students, but as a high-quality, in-depth, hands-on program, to students of the Humanities, Social Sciences, Arts, Law, Medicine, Exact Sciences, Life Sciences, Design, Engineering and Business. Other universities' programs are targeted at engineering and management students and/or, are offered only to excelling students. The fact that TAU is offering this program so broadly is quite unique.

A second key to TAU uniqueness is the extent and breath of our academic program. Our curriculum, holds over 30 courses from which the students can elect to study up to a total of 16 credits. For example, a BA in Philosophy requires 120 credits. A Philosophy student looking to study entrepreneurship can elect to study 104 credits in Philosophy and 16 credits on entrepreneurship (15% of the degree!) to qualify for a BA degree in Philosophy with entrepreneurship studies. In addition, we developed a broad layer of Experiential Entrepreneurship where we have students work on real industry (government, private, social) problems and opportunities. Included in this are soft-skills extracurricular studies. Lastly, our courses and extra-curricular activities are based on industry participation. The intention is that in each course or activity, students will work with industry mentors and guests. This part is still being developed but so far, we had 10s of mentors participate in our activities.



**Tel Aviv
University**
Make it Happen!



University of Technology Sydney

Future plans

We will continue to engage with and provide entrepreneurial experiences to our students towards our ambitious plan to reach 50% of UTS students (over 20,000) with entrepreneurial experiences and support within the next five years.



The home of student entrepreneurship

About two years ago, UTS set out an ambitious and transformative agenda to scale entrepreneurship across the university, envisioning UTS as a leading public university of technology, recognised for our global impact and to be Australia's leading university in entrepreneurship and innovation.

Since then, we have established a new portfolio with a focus on Innovation and Entrepreneurship, led by the Deputy Vice-Chancellor, Innovation and Enterprise. Listening to our students who told us they want the skills and ability to create their own career pathways when they graduate, we have thought carefully how we could provide the desired high level of support, while ensuring excellence, sustainability and high social impact.

As a result, we have embedded entrepreneurship in our 10-year strategy and have developed a four-pillar approach to reach this goal: Entrepreneurial experiences for students, ecosystem partnership cultivation, driving precinct development towards a tech

Key statistic

3.5 Million AUD\$ financial commitment to the scaling of entrepreneurship



Lessons learned

When UTS two years ago stepped up its commitment to student entrepreneurship, setting out an ambitious and transformative agenda to scale entrepreneurship across the university, the team in the Innovation and Entrepreneurship Unit have led this charge, aiming to bring entrepreneurship opportunities to the more than 40% of our students who have told us they want the skills and ability to create their own career pathways when they graduate.

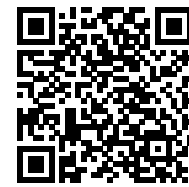
What has worked for us is to take student feedback on board and put a lot of thought into how to best provide the desired high level of support, while ensuring excellence and sustainability-much like a startup looking to scale to meet growing demand, without compromising the product or experience.

Another key component to scaling entrepreneurship university-wide was our cross-faculty approach. The vehicle for supporting student entrepreneurship across the whole university is UTS Startups, which has at its foundation in core community values: recognition of the importance of inclusion, gender and cultural equity, and social impact in entrepreneurship.



Engaged University of the Year

Finalists



ASSAM DON BOSCO UNIVERISTY

**Moulding depend-
able graduates
serving humanity**

■■■
**“THE VALUE OF
SOCIAL COM-
MITMENT MUST
BE INCULCATED
INTO OUR GRAD-
UATES AS A UNI-
VERSAL HUMAN
VALUE.”**



Image
Adult Literacy Class

Established in 2008, Assam Don Bosco University was set up at Guwahati, the gateway to North-East India, as a response to the felt educational needs of the people of North-East India to offer them relevant study programmes with a focus on research and social commitment. True to the educational philosophy and praxis of Don Bosco, catering to the needs of the minorities, the under-privileged and the tribal population undergirds the plans and policies of the University. To be “engaged” in Assam Don Bosco University implies nurturing synergy in reciprocal learning and action based on student led initiatives, dialogue among concerned stake holders including University faculty, staff, alumni, parents, government and non-governmental organizations and community participation towards alleviation and resolution of issues afflicting communities and environment. With a vision of “Moulding young persons into intellectually competent, morally upright, socially committed and spiritually inspired citizens at the service of India and the world of today and tomorrow, by imparting holistic and personalized education”, the mission of the University is centred on a sustained effort to impact educative processes, strategies and

policies for youth for their positive transformation and contribution as nation builders. Institutional Values supported by the Graduates Attributes Framework of the University is embedded in the ethos of Assam Don Bosco University and are reflected in the practices of the University in the areas of gender sensitivity, management of environment and water resources, waste disposal, use of renewable energy and building solidarity through empathy, equity and reciprocity in interactions.

Impact story

A wonderful transformation took place in a village in which our university students from the department of social work and student volunteers from University College Dublin jointly carried out a social outreach program. The main objective of the program was renovation of the anganwadi centre (rural child care centre): providing a new roof for the shelter, plastering and painting the walls with pictures appealing to the children, cementing the floor and renovating the toilets. In this process, the students involved the men folk from the village. That is how the transformation took place.

As in many parts of North East India, a village can have more than one ethnic community, each with its own language and culture. In this village of our intervention, there were predominantly two communities: Adivasis and Boros. The people of these two communities were not united, not even talking to each other; instead there was a strained relationship. There is only one Anganwadi centre in this village. Our student volunteers involved the men of this village in the renovation of the anganwadi centre, in the planning and execution of the work of renovation. The students from University College Dublin provided the financial support. The entire village came together for this project because it was meant for the welfare of their children. They united together for the good of their children. More than providing a renovated anganwadi centre, we united the communities of this village. There was joyous celebration at the handing over function.



UNIVERSITY OF THE SUNSHINE COAST

Connecting people, place and greenspace to create healthy, happy communities

Anchor institutions such as universities, community and government organisations maintain significant infrastructure and represent major employers and economic assets (Ehlenz 2018), and as such play an important role in facilitating decision-making that includes community aspirations and

dialogue into policy-making processes. In this regard, it will be increasingly important for communities, governments and businesses to work together to encourage inclusive, socially cohesive and resilient communities to provide equitable access to basic services and social and economic op-

portunities (Taylor, Walton et al. 2017) in their shared community of place. In increasingly resource-limited institutions, strategic partnerships and collaborative approaches are a key element of strategy and governance at a range of scales. Healthy Towns is a Sunshine Coast born engagement proj-

ect that showcases how the University of the Sunshine Coast (USC) health promotion academics and students collaborate with regional stakeholders to support local community projects that positively impact the health and wellbeing of their communities and beyond. Healthy Towns recognises and awards work regional and rural community groups do to improve the health and happiness of their communities through the creation of connections. Eligible projects focus on inequity populations and build on the strengths and resources of participating towns. Annual awards are available in three categories: 1) Connections between People, Connections with Place, and; 3) Connections with Greenspace. There is also an Overall Health and Happiness Award which recognises projects that create connections across all three connections categories. The number of awards and recognition funds has increased annually as Healthy Towns has grown.

“COMMIT TO A VISION – FROM HUMBLE BEGINNINGS GREAT THINGS CAN HAPPEN WITH VISION, COMMITMENT AND RESPECTFUL ENGAGEMENT PRACTICE.”



Future plans

Healthy Towns collaborators vision is for Healthy Towns to be “grand” and implemented nationally in Australia and possibly beyond. The next step in reaching this vision is expansion of Healthy Towns to other Primary Health Network (lead organisation) regions within the state of Queensland. Duplicating the Healthy Towns model in these new more rural regions will road test the roll out process in preparation for scaling up to state and/or national level sooner than later. We have lots of work ahead and growing Healthy Towns will require working with many new local governments, and community groups and organisations, and in doing so expand networks and collaborative opportunities.

For USC, being a key collaborator in the journey to achieve the Healthy Towns vision enables us to develop our capacity as an engaged University in public health. Healthy Towns in the Sunshine Coast area will continue to provide teaching opportunities for health promotion students to develop their professional practice and community engagement competencies.





Australian Catholic University

Achieving impact through empathy

At Australian Catholic University (ACU), our commitment to community is part of the university mission. We value community engagement as a key means of advancing our mission in serving the common good and enhancing the dignity and well-being of people and communities. It is integral to our teaching, learning and research. There is a particular focus on working with communities who have experienced disadvantage and/or marginalisation. Community engagement at ACU isn't just about helping others in the short term. It's about working with and listening to communities to forge long-term relationships and develop meaningful solutions to complex problems. To this end, community engagement at ACU is guided by five principles based upon Catholic social teachings: 1) Building connections; 2) Developing understanding; 3) Affirming dignity; 4) Pursuing justice; and 5) Acting with humility. ACU is committed to ensuring that all students and staff have the opportunity to make a meaningful contribution to their community. For students, community engagement is one



Future plans

In October 2019 the Vice-Chancellor approved establishment of the Stakeholder Engaged Scholarship Unit (SESU), and embedded this into ACU policy. The SESU will provide increased opportunities for ACU to collaborate with Mission-aligned partners to complete scholarship and evaluation of community programs, and support community-based social justice and inclusion endeavours. Community partners will be able to make requests for support and the SESU will then source appropriate expertise ACU wide.

Key statistic

Hours of domestic community engagement pursued by ACU students in 2019



Lessons learned

Growing the culture of an engaged university requires embedding community engagement within the Mission, identity, and strategic plan. When community engagement is part of the strategic plan, academics and professional staff recognise the need to include it in their performance plans and department operations plans.

An engaged university needs visible support for community engagement from the most senior levels of the organisation. When there is a clear and consistent message that community engagement is a priority for the university, staff do not feel like it is an 'add-on' or something that is a lower priority than traditional academic pursuits. At ACU, our Vice-Chancellor is a passionate supporter of community engagement, and he models this to staff and students by actively participating in community engagement activities. We also have a Pro Vice-Chancellor, Engagement and a dedicated ACU Engagement team to promote, support and celebrate community engagement.

Developing the culture of community engagement at a higher education institution must also work from the ground-up, and in an organic way in partnership with community. At ACU we emphasise that community engagement is the right and responsibility of all staff and students, not a single organisational unit. We create space within workloads and the social and physical environment for relationship building and developing community engagement partnerships and programs. Some examples of how this has been supported is through ACU's Community Engagement Time-Release Policy (CETR) and Vice-Chancellor's staff awards that recognise contributions to community engagement. These approaches are supported by genuine endeavours to open the university's physical space to the community.



FUZHOU MELBOURNE POLYTECHNIC

Read ten thousand books,
travel ten thousand miles



Key statistic

83 overseas universities
FMP cooperates with



As an educational institution with a concrete strategy of international engagement, Fuzhou Melbourne Polytechnic (FMP) embodies Gu Wanyu's aphorism. Through engagement with the international community, FMP aims to train students not only through academic excellence, but with an authentic 'international vision,' an understanding and awareness of international rules and the possession of international professional standards. FMP is a Sino-foreign cooperative institute between Minjiang University and Melbourne Polytechnic in Australia - one of the first of its kind in China. A key way in which FMP pursues international engagement is through facilitating overseas study for its students. To this end, FMP maintains a 'Study Abroad Department.' A number of FMP students and graduates have won awards in areas

where international engagement has proven to be helpful and many go on to work for multinationals and export-oriented companies. Gu Wanyu is also known for his statement: 'The fate of the nation is the business of all.' It is FMP's contention that international engagement in personal and professional development is a way to guarantee prosperity and give back to the community and to society.



Impact story



On 28 March, 2015, a delegation from Tasmania visited Minjiang University. Among them was FMP alumnus Xu Zhe, and the Premier of Tasmania, Will Hodgman. Xu was returning to his alma mater, through which he had been able to study at the University of Tasmania where he obtained a master's degree.

In Australia, Xu Zhe has been active in the China-Australia relationship, serving as the Vice-Chairman of the Chinese Chamber of Commerce in Hobart, Tasmania and co-writing a book with a well-known Australian historian entitled Showcasing Tasmania and the connection to Fujian China. In 2014, Xu Zhe was recognised for his contributions to the China-Australia relationship when President Xi Jinping visited Australia and Xu was invited to a state banquet, which he

described as 'close contact with our former Principal.' After this event, Xu contacted FMP and stated the following:

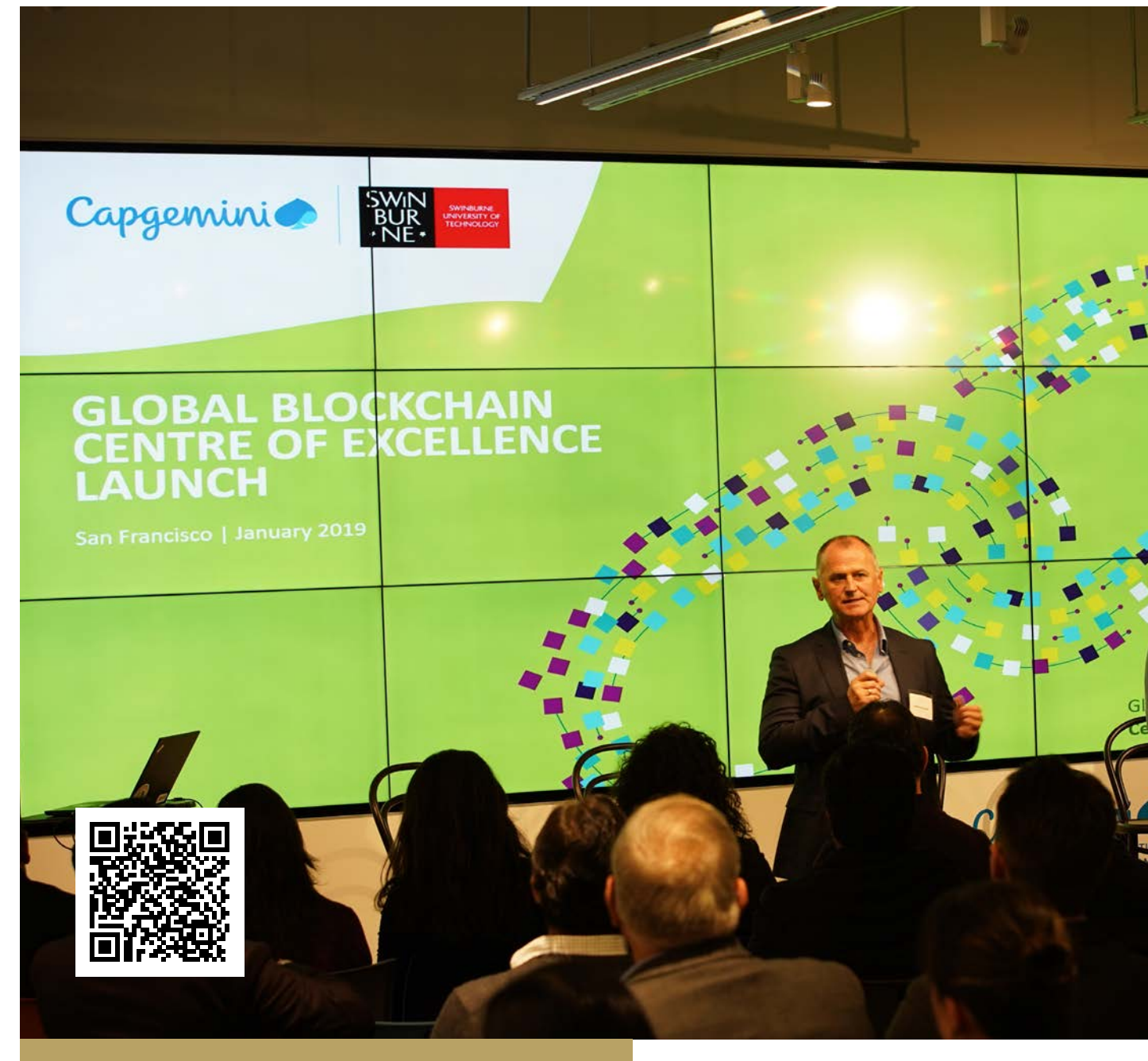
'I am sincerely grateful for the Sino-foreign cooperative platform. ... Its internationalised teaching mode helped me adapt to overseas life, complete my studies, successfully gain a decent job, and achieve my value in life. The honour of meeting [President Xi] belongs to my alma mater and the influence it had on me.'

In 2015, a ceremony was held to appoint Xu as chairman of the Australian Alumni association. Xu quoted a Chinese expression: 'Those who drink water cherish its source, and those who complete study feel grateful to their teacher.'



SWINBURNE UNIVERSITY OF TECHNOLOGY

Working collaboratively to build an impactful research and innovation ecosystem



“LEAD WITH PASSION, POSITIVITY AND OPENNESS. ALL ARE CONTAGIOUS AND PEOPLE WILL WANT A PART OF IT.”

Swinburne University of Technology has a long history of positive engagement, both internally and externally, supported by a strong university-wide strategy and approach. The university's strategic plan and operational structure highlights engagement with industry and community as central to achieving its vision to be 'A world class university creating social and economic impact through science, technology and innovation.'

In 2016 Swinburne's new research strategy 'Research and Innovation Strategy 2020 – Transforming Industries, Shaping Lives and Communities' further articulated this commitment to engagement. The Strategy and aligned work plans outline an ambitious approach to research engagement across the university, with industry and community, locally and globally. It details innovative engagement methods to grow Swinburne research excellence and reputation and to create research outputs that are readily translated to societal impact. Key innovative engagement initiatives outlined in this strategy that are creating an integrated and engaged Research and Innovation Ecosystem at Swinburne include:

An Innovation Precinct - to encourage and integrate research-led innovation and an innovation culture across the university, linked with industry and community.

Interdisciplinary Research Institutes - to encourage and enhance our multidisciplinary engagement internally and with external partners, to enable the development of research projects that can address real-world, complex issues.

Digital Research and Innovation Capability Platform – to create strategically differentiating digital research capability, growing expertise and forming key relationships, and linking with global industry partners.

Expanding local and global reach - by developing partnerships with aligned research institutions and business partners to cost effectively build scale, reputation and impact reach.



Green University of the Year

Finalists

“THE UNIVERSITY ADMINISTRATION AND THE BOARD OF TRUSTEES HAVE AGREED UNANIMOUSLY ON MAKING SUSTAINABILITY ONE OF THE PILARS OF UNIVERSITY WHICH IS REFLECTED ON ITS NEW STRATEGIC PLAN 2018-2023.”

Sustainability has been one of the core principles at Ozyegin University (OzU) since its establishment and is deeply embedded in its education and research strategy. For OzU, being a green university means decreasing our ecological footprint, prioritizing the environment and its future preservation in all our academic, scientific and operational pursuits and building an organic community constantly improving itself on every aspect of sustainability in collaboration with all its stakeholders. The emphasis of the university to be a green university is directly reflected in the architecture and construction of our campus. The three campus buildings out of four have been awarded highly acclaimed LEED GOLD certificates, showing the dedication of OzU to environmental sustainability. In addition, the fourth was constructed within the scope of the NEED4B “New Energy Efficiency Demonstration for Buildings”, co-financed by the European Union. As a result, we lead the formation of standards for green buildings in Turkey by coordinating the Turkish Green Building Council. We try to restrict our carbon footprint. We use wind power and solar panels on all the non-green roofs, as well as trigeneration system for heating and cooling. OzU operations are carried out according to strict environmental principles. We established the first Health, Safety and Environment (HSE) Unit and be the first to have ISO 14001 and OHSAS 18001 among all Turkish universities. Our academic endeavors reflect the importance attached to sustainability as well. 11% of the active courses content and 75% of research budget is devoted to projects on sustainability.



OZYEGIN UNIVERSITY

Your life's venture
Y(our) future
Y(our) sustainability



La Trobe University

NANGAK
TAMBOREE



Lessons learned

At La Trobe, achieving net zero by 2029 requires strong support and engagement from all stakeholders, both senior leadership and academics. Since announcement and roll-out, the engagement from staff, students, academics has been unsurpassed for this program. The challenges often encountered early on for large initiatives like this were quickly overcome. Creating a clear plan that was clearly articulated and easy to understand, quickly helped create a strong sense of belief in the program and support.

The momentum has grown with delivery, taking a life of its own with unforeseen partners locally and globally requesting to join us on our journey. The potential partners keep growing every week. The high level of engagement from students, academics and community have translated into these groups coming forward with ideas, proposals, plans, suggestions to assist in achieving our goal. There is also a changing financial dynamic. This project is able to stand up financially, and successfully compete for capital funds as ROI can be demonstrated.

For any large organisation wanting to embark on a similar journey, we strongly advise to start by focusing on consumption and efficiency reduction, rather than rush out and source off site carbon credits. It is achievable and will result in longer term sustainability. Be sure to announce the plan to a range of stakeholders and aim to implement quickly to maintain momentum, and support the program with a robust marketing, communications and engagement plan. Lastly, be open to ideas and experimenting with the range of opportunities that come.

Future plans

Our regional campuses will be net zero in 2022 and we are pursuing the first carbon neutral campus by end of 2020.



A climate clever university for today and tomorrow

La Trobe's commitment to being a green university is evident across teaching, research and operations. Three unique initiatives stand out:

1. **The La Trobe Net Zero Program** (LTNZP) has an ambitious target to achieve carbon neutrality by 2029, making La Trobe the first university in Victoria to achieve this. LTNZP intentionally focusses on reaching carbon neutrality utilising the University's resources to generate renewable energy and reduce consumption – not simply purchase carbon credits. Installing over 7,000 solar panels and 60,000 LED lights, new solar carports and an organic waste processing unit all contribute to our target.

2. **The La Trobe Energy Analytics Platform** (LEAP) is a data analytics platform to analyse, benchmark and predict energy consumption. LEAP applies cutting-edge Artificial Intelligence and machine learn-

ing to analyse data from a variety of public and private sources. LEAP enables building benchmarking and can measure & validate the effectiveness of energy savings to International Performance Measurement and Validation Protocol (IPMVP) standards. LEAP is a true "living lab" with PhD students participating in its development under the guidance of the university's Centre for Data Analytics and Cognition.

3. **La Trobe's unique eco-corridor "Nangak Tamboore"** is being enhanced and protected with re-vegetation and re-generation taking place on and outside our campus. It includes a 50 year bushland regeneration project growing the Wildlife Sanctuary from 6.5 ha to 30 ha of biodiverse indigenous flora and fauna. It is protected by a Trust for Nature Covenant and is an important node in the wildlife corridors of the region.





IIT GUWAHATI
ANAEROBIC
DIGESTION



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

**Learning in tandem
with the tides of the
mighty Brahmaputra
at the vibrant cam-
pus of IIT Guwahati**



**“GUWAHATI IS POISED
TO SCALE NEWER
HEIGHTS THROUGH
ALL ROUND GROWTH
AND DEVELOPMENT BY
ADOPTING BEST PRAC-
TICES AT ITS INSTITUTE
& VARIOUS INSTITUTES
IT IS MENTORING.”**



Vermicompost Plant
IIT Guwahati



IIT GUWAHATI GREY
WATER PUMPING



Indian Institute of Technology (IIT) Guwahati established in 1994 has completed 25 years of glorious existence. At present, the Institute has 11 departments and 5 inter-disciplinary academic centres covering all the major engineering, science and humanities disciplines, offering BTech, BDes, MA, MDes, MTech, MSc and PhD programmes. The institute offers a residential campus to 413 faculty members and more than 6,000 students at present. IIT Guwahati has been able to fulfil the aspirations of people of the North East region to a great extent since by maintaining the highest green cover and practices despite having an expansive campus. The picturesque campus is on 285 hectares plot on the north bank of the Brahmaputra, with more than 60% of it being a complete green cover, which includes hills and large lakes and few manmade water bodies within the campus and preserving the healthy eco system. All possible green practices in the campus are being implemented that are of the highest standards. These includes the following:

1. **Rainwater harvesting** by developing extensive infrastructure across the campus for near complete rain water collection into interlinked lakes and water bodies and their utilization primarily for horticulture purposes, fish harvesting and migratory bird's preservation sites.
2. **Grey water utilization.**
3. **Solar panel installations** in hostels, academic buildings, administrative buildings that generates power of up to 940.74 kWp and enhancing this capability by 5-10 % every year.
4. **Sustainable and biopolymer development and utilization** and ban of single use polymers.
5. Providing **E-rickshaw** to campus users.

Impact story

Solar photovoltaic panels/plants are installed at IIT Guwahati campus. A total of 940.74 kWp is generated through installed photovoltaics across the campus. Solar water heaters are installed at various hostels in the campus to harness green energy. Rain water is harvested across the camps very efficiently and channelled to the large lakes and waterbodies in the campus which is reused for gardening, construction, washing vehicles and common maintenance purpose. Artificial ponds to harvest rain water have been developed. Vermicomposting units developed across the campus that are used to develop manure and recycle organic waste. Food waste is systematically collected from across the campus and delivered to piggeries on a daily basis rather than disposing them. Plastic has been banned and replaced with biodegradable polymers and sustainable alternative materials developed in house in many cases.



GLIMPSES OF ROOFTOP SOLAR POWER SYSTEM INSTALLED ON BUILDINGS OF THE UNIVERSITY

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“UNSCIENTIFIC DISPOSAL OF HOUSE HOLD WASTE AND FLORAL OFFERINGS OF THE TEMPLE, PREVALENCE OF DIESEL BASED IRRIGATION SYSTEM AND DEPENDENCE ON COAL BASED ELECTRIC ENERGY HAVE BEEN THE MAJOR ENVIRONMENTAL CONCERN IN INDIA”



BELPATRA , FLOWERS AND OTHER WASTE INSIDE THE TEMPLE SRI BAIDYANATHDAM, DEOGHAR



DR. RAJENDRA PRASAD CENTRAL AGRICULTURAL UNIVERSITY

Dr. Rajendra Prasad Central Agricultural University has initiated several measures to protect the environment by introducing solar based irrigation systems for challenged ecology, solar based power supply to its different units and management of household waste into vermicompost. For better waste man-

agement, point source segregation of biodegradable and non-biodegradable waste is in practice. Compostable waste and cow dung from own animal farm in equal proportion (50:50), arranged in windrows, inoculated with epigeic earthworm species @2 kg per ton of material at optimum moisture and tempera-

ture under the shade. Prepared cast is utilized by farmers and other stakeholders. The conversion of house hold waste during last one and half year resulted productions of 1400 Quintal of vermicomposting, 7.93 Lakh numbers of worms, engagement of man powers and generation of revenue of 11 lakh. This



concept is further strengthened by utilizing the floral offerings of major Lord Shivas Temples located at Baidyanath Dham (Deoghar) and Garibnath Temple, Muzaffarpur into vermicompost and distributions of Tulsi Plant grown in such vermicompost to the Devotees for environmental cleaning through waste management and environmental air purification through planting of Tulsi plant. The University has developed boat based solar powered pumping system, adopted solar tree technology for irrigation of flood prone areas and and Tractor trailer based mobile solar powered pumping system for Diara and TAL areas to reduce dependence on the diesel based irrigation system from the river but also channelize bank of rivers towards agriculture production systems during pre and post monsoon season. Establishment of bio-diversity Park, eco-club, planting and nurturing of one plant by each student of the university has further led the university towards green campus.

CHIBA UNIVERSITY OF COMMERCE

The First 100% Renewable Energy
University in Japan



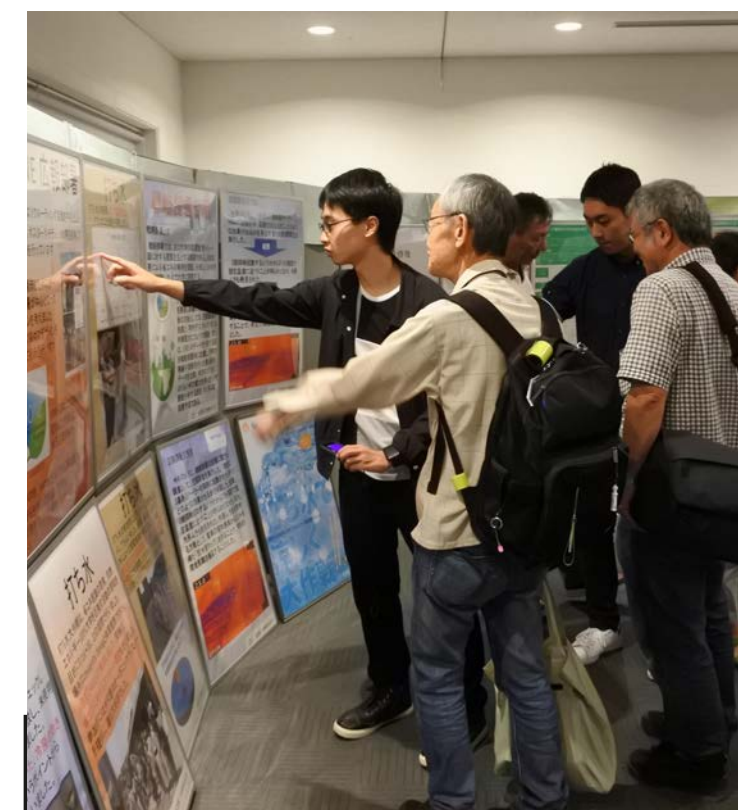
In January 2019, the Chiba University of Commerce, or CUC, became the First 100% Renewable Energy University for electricity, out of 786 universities in Japan, by offsetting the electricity we consume on campus with the renewable energy we generate both on campus and on the Mega-Solar Farm off campus. We are the first, and as of December 2019, without a second, as no other university in Japan has achieved this yet. Though RE100 is usually applied to the consumption of electricity, our challenge is to take it to the next level and become the first truly 100% renewable energy university in Japan, making our renewable energy generation equal to our total energy consumption, i.e. electricity plus gas, by March 2021. As of October 2019, we have achieved 112.4% of our electricity consumption, and 89.7% of our total energy consumption from renewable energy. To achieve this

Lessons learned



Our advice for those aiming toward 100% renewable energy is to ask "How can we do this?" To become a 100% Renewable Energy University seemed at first to be an almost impossible task. However, we started not by listing the reasons why it was impossible or difficult but by asking "How can we do this?" When we took that approach, different possibilities emerged. With regard to hardware, we found we could increase the number of photovoltaic panels on the solar farm as well as on our rooftops by utilizing every inch of available space. We applied for and were able to get government funding to change all the fluorescent light bulbs to LED. With regard to software, the Energy Management System, or EMS, enabled us not only to optimize power consumption and production but to make them visible, which encouraged

goal, we will continue to work on three aspects: hardware, software, and "heartware." Hardware refers to the photovoltaic panels on our Mega-Solar Farm and all our available rooftops, and the LED lights installed throughout the campus. Software refers to the Energy Management System, or EMS, which optimizes our power consumption and generation and makes them visible. "Heartware" refers to the mindset and attitude which lead to concrete action of everyone involved, from university management, faculty and staff, to students. We believe that in the end, it is this "heartware" which will enable us to become the first truly 100% Renewable Energy University in Japan.



our energy-saving efforts. Most important of all, with regard to "heartware," which refers to the mindset and attitude which lead to concrete action of everyone involved, we found that the effort to achieve our goal helped to bring us together as "One Team." Our initiative is not only environmentally-friendly, it is also economically sound. We want other institutions to know that what is good for the earth can also be good for business. To that end, CUC established a regional energy company, CUC Energy Inc., in May 2016 to carry out our energy business including financial support of RE100 University activities. This, too, can be a model for other institutions.

Lifetime Achievement in Entrepreneurship

Finalists



BRANDLAURETTE
AWARD

■ ■

**“AS A PASSIONATE
EDUCATOR AND
SOCIAL ENTREPRE-
NEUR, I STRONGLY
BELIEVE THAT NO
ONE SHOULD BE DE-
NIED ACCESS TO AF-
FORDABLE QUALITY
EDUCATION.”**



Lessons learned

Education is beyond business. Yes, I manage MSU like any other business enterprise to ensure its sustainability. Education is about unlocking potentials, transforming lives – not merely a profit-making entity. Profit come as a consequence but not the goal. My vision is to establish an accessible, affordable and sustainable education ecosystem where quality is not compromise. It is an ecosystem that produce a holistic, balanced and well-rounded graduates who will contribute to the nation. These graduates are not only excellent academically but have fundamental universal values such as, integrity, inter-cultural intelligence, gratitude and giving back to communities. This ecosystem will also provide spill-over economic and social impact to the surrounding communities that MSU serves.

Education is a marathon not a sprint. The fruits of labour come after many years of nourishing and experimenting with the ecosystem. What you reap depends on the intention of what you sow. I chose to sow the seeds that will transform lives and enrich the future of my graduates, the teams that are with me and the larger communities that we engaged with. It is a philosophy that looks beyond the financial returns. One also need to have the passion, patience and resilient to battle the ever-changing landscapes of education. Keep up with the latest global trends in pedagogy, technology, societal and economic demand to ensure relevancy and adaptability of curriculum and able to provide a holistic learning experience. Overall, keep the organization agile and collaborative to ensure the growth and sustainability of the organization.

MOHD SHUKRI AB YAJID

MANAGEMENT & SCIENCE
UNIVERSITY

Transforming Lives,
Enriching Future



My entrepreneurial journey started 38 years ago. I believe education is the game changer in transforming young minds. Since then I diligently pursued my passion and transformed a small entity into MSU – a sustainable, entrepreneurial and internationally recognised University with offshore campuses and learning centres. MSU Medical Centre was then established as a strategic investment that provide integrated learning experience for medical students and also serves the local and international communities. My role is to lead the team towards strategic focus and being persistent in pursuing goals. I ensure MSU focus on two main pillars of employability and entrepreneurship (2Es) supported by the culture of Giving and Gratitude (2Gs). Success is not about competition but contribution towards the lives that we touch and change for the better. Having an agile matrix collaborative organization enable me to have an integrated and transparent performance ecosystem to measure stakeholder's achievements. The MSU Foundation that I established enables all the business entities to contribute towards funding the University. Annually it disbursed RM21 million worth of scholarships to under-privileged students. Significant achievements, among others, include accreditation by ACEEU, highest graduates Employability Rate, Most Entrepreneurial

Private University, respectable ranking by QS World University Rankings and Time Higher Education. Personal recognitions include Asia Pacific Entrepreneur Award, Edupreneur of the Year and ASIC Chairman Inspirational & Innovation Leadership Award. A believer in equal opportunities, significant percentage of women sits on the Board of Governance and Management Committee and minority groups serves the faculty management and Students Council.



ASIA PACIFIC ENTREPRENEUR
OF THE YEAR

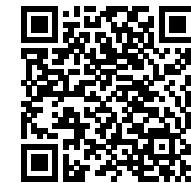
NOEL LINDSAY

THE UNIVERSITY OF ADELAIDE

Challenging convention

My entrepreneurial leadership approach is all about team development and team cohesion. I identify an opportunity(ies) and provide a vision of how to achieve success, working with my team so that there is buy-in to the vision, and then encouraging them to support the vision in their own way. I let my team know what we need to achieve, but not how to go about achieving this. In this way, my team members grow as they work on developing strategies for achieving key objectives and the overarching vision. Team members may make mistakes in the process, but there are no penalties if this happens as making mistakes helps people to learn. My entrepreneurial competencies include being visionary and creative, opportunity focused, and resourceful. I develop and

am responsible for implementing strategic plans regarding entrepreneurship and innovation across the University of Adelaide. But I am also responsible for fostering an overall supportive and dynamic environment that enables my team to manifest and deliver those strategic outcomes. That includes encouraging and supporting staff/students to undertake their own projects, and to build entrepreneurial competencies, such as creativity and risktaking. I am continuously looking for opportunities that will help our School/University to grow, and being entrepreneurial, I understand the need to attract key strategic people, financial, and other resources to support the establishment of entrepreneurial projects.



Lessons learned

Of surprise to me, and totally unexpected, was how I developed a passion for entrepreneurship. Initially, my entrepreneurship focus was more on opportunity-related entrepreneurship, where individuals start businesses because they see an opportunity. Over time, I became interested in the power of entrepreneurship and how it can help change the lives of those who are socially or economically disadvantaged or who are intellectually challenged. Thus, I became interested in necessity entrepreneurship, where disadvantaged individuals start businesses out of need – not necessarily because they want to, but because they have to – for survival. During this process, I developed a better understanding of myself, and an understanding of the power of an entrepreneurial mind and how it can positively affect individuals, families, and communities.



PROF LINDSAY WITH
THE ECIC TEAM

CALUM JOHN DRUMMOND

RMIT UNIVERSITY

Sculpting research and innovation ecosystems to provide exceptional societal value.

It is very important that universities employ their capability to provide optimal value to society beyond that of a student receiving a higher education. Otherwise the university is an underperforming societal asset. Professor Drummond has led a comprehensive remodelling of the research and innovation ecosystem of RMIT university to deliver far greater economic, community and environmental benefit.

His exceptional contributions to innovation through the conduct, management and entrepreneurial translation of research have been recognised by some of Australia's most prestigious awards including:

1. Appointed as an Officer of the Order of Australia (AO; General Division) within the Australian Honours system in 2019 for distinguished service to chemistry and materials science research, to commercialisation initiatives, and as a mentor.
2. Recognised in The Educator's inaugural Higher Education 2019 Hot List. The list identifies Australian higher education professionals who are among the global community driving cutting-edge research, innovation and positive educational change.
3. Elected as a Fellow of the United States National Academy of Inventors (FNAI) in 2019 in recognition of exceptional accomplishments in innovation and invention to benefit society.
4. Awarded the Ian Wark Medal and Lecture from the Australian Academy of Science in 2018 for outstanding contributions to the prosperity of Australia through the advancement of scientific knowledge and its application.
5. Awarded the Weickhardt Medal from the Royal Australian Chemical Institute in 2017 for significant contributions towards the economic advancement of Australia.
6. Awarded the Victoria Prize for Science and Innovation by the Australian State of Victoria in 2015 celebrating leadership, determination and creativity.



US NATIONAL ACADEMY OF INVENTORS
FELLOWSHIP MEDAL @ NASA HOUSTON
CEREMONY

Lessons learned

It was important to deconstruct old structures that were holding the university back. For example, all the Research Institutes were closed and a very different construct, Enabling Capability Platforms, was stood up at the same time. This allowed fresh unencumbered entrepreneurial approaches to research translation and industry engagement to be readily introduced.

Obtaining ownership of the initiatives by key RMIT senior executives and the academic workforce was critical. The executives held many of the resources that needed to be released. The initiatives were introduced to support the academic mission and the academic workforce deliver this mission. Pleasingly, 70% of the academic workforce has affiliated to one or more ECPs. Each of the four initiatives were major change processes. The initiatives had to be formally managed within a change management framework in order to ensure success.





EDI NOERSASONGKO

UNIVERSITAS DIAN NUSWANTORO

For A Better Future

Prof. Edi Noersasongko is deserved to be awarded in this category since his track record in entrepreneurship runs since he was young. As an entrepreneur, he has the crucial character that proves what he began is showing good progress. He founded a small computer training institute, in which computer science turned so unpopular in 1986, and turns it into a university based IT since 2000, trusted by society, official government, and industries. As an entrepreneur, he also combines IT and entrepreneurship to be applied on campus, in all faculties. The combination does not only impact to students who are obliged to take the course, but it also impacts staff and lecturers to create their own business. Prof. Edi Noersasongko does not stop spreading the entrepreneurship in the campus area. Under the management of Udinus Business Incubator Department, Prof. Edi supports student to join entrepreneurship competitions and guarantees that students receive services such as coaching and assisting. These achievements come from Prof. Edi Noersasongko as an entrepreneur. The one who is visioner, looking for opportunities, and persistence.



HE BELIEVES THAT EVERY BUSINESS CAN BE RUN IF SOMEONE DARES TO START. AFTER HE FINDS HIS BRAVERY, HE NEEDS ALSO TO BUILD THE CHARACTER OF AN ENTREPRENEUR SUCH AS VISIONARY, CURIOUS, AND PERSISTENCE.



Prof. Dr. Ir. Edi as Director LPKIA Jakarta



IMKA Building





BALVINDER SHUKLA

AMITY UNIVERSITY UTTAR PRADESH

Prof. (Dr.) Balvinder Shukla is the Professor of Entrepreneurship, Leadership & IT and the Vice Chancellor of Amity University Uttar Pradesh (AUUP) with an overall experience of 34+ years. Prof. Shukla has taken many initiatives to the advancement of entrepreneurship education. Such as:

1. Initiated promotion of Entrepreneurship by introducing Entrepreneurship Courses at UG & PG Level. More than 48 courses have been introduced for UG, PG and Doctoral programmes.

2. Initiated Entrepreneurship Awareness Camp (EAC) for students to motivate to start their own ventures. More than 35 EACs have been organized for 5700+ students in last two years.

3. Conducted Women Entrepreneurship Development Programmes (WEDPs) and Technical Entrepreneurship Development Programmes (TEDPs) to help and guide Entrepreneurship building.

4. Seven 'Train the Trainer' programmes have been conducted from faculty members. 180 faculty members have been trained in Entrepreneurship to come mentors of building Student Entrepreneurs.

5. Prof. Shukla has been instrumental Amity Center for Entrepreneurship Development (ACED) to develop global entrepreneurial mind-set citizen sensitive to professional and human values. The ACED is dedicated to conduct various courses, workshops, training and counseling sessions to generate ideas, work on business development plan and coordinate with In-

stitutional Faculty Coordinator to conduct various activities to support the students.

6. In the last 3 years, ACED has organised 3 Entrepreneurship Awareness Camps (EAC), 3 Faculty Development Programmes (FDP), 1 Women Entrepreneurship development Programme (WEDP), 1 Technical Entrepreneurship development Programme (TEDP), 1 Digital Marketing Workshop for FICCI FLo Women, 1 Entrepreneurship Development Programme (EDP) and 3 Business Plan Competitions.

7. All systems analysed and most of the processes are now automated.



Entrepreneurial Leader of the Year

Finalists

DR. HASMUKH LAL

THE UNIVERSITY OF THE SOUTH PACIFIC

Transforming lives through entrepreneurialism and excellence



DR LAL WITH PACIFIC TAFE STAFF ON WINNING VC'S TEACHING EXCELLENCE AWARD

Lessons learned

People (particularly professors) within university committees leading up to Senate, often derail proposals of programmes lower than degree (expected level cynicism), but one needs to be on the spring board and explain the added value created, in a convincing manner, such as in the creation/ recognition of pathways and income diversification, to make the university entrepreneurial and sustainable.



The 12 countries that jointly own my university, are categorised mostly as least developed or are developing countries. These countries are scattered across 33 m sq. km in the Pacific Ocean and we are serving the needs of over 2 million in total population. Thus it is not an easy place to operate successful entrepreneurial ventures, specifically through an academic institution.

From small scale of economies, geographical scattered-ness, respect for individual sovereignty, access and digital divide at large, and vastly diverse culture and thinking. I have successfully managed, led and prepared USP Pacific TAFE to be the largest academic section of the University which has impacted the lives of many students, helping them in finding pathways to higher studies, entrance into employment and career advancement for already working students. This was done purely on self-funding basis. Tuition has been the only source of income for capital investments, overhead payments to the University and to manage operations and improvements. No grants were given to my section from the Governments or the University.

Despite these, my leadership has enabled thousands of students to study sub degree (vocational and career oriented programs) which was established on venture initiative/ start up model on fee for service amongst other achievements. Thousands of students have since graduated and moved into employment/ career advancements, while we have continuously delivered surplus results above targets.

Consequently, I believe driving entrepreneurial leadership in a very difficult political, social and geographical context with unending challenges, makes my application, the most unique.



MURRAY HURPS

UNIVERSITY OF TECHNOLOGY SYDNEY

Creating the university for entrepreneurs, with entrepreneurs

When I was 7, I spent each afternoon coding, then went to bed praying I would be running a software company when I grew up.

I'm now 20 years into that dream, having founded and grown several tech companies. In doing so, I have developed a passion for inspiring and supporting others to pursue technology-driven entrepreneurship, and for them to have the support I didn't have when I launched my first startup at 16.

While my startup grew to over 100 million active users over 15 years, I'm more proud of what I have accomplished afterwards to support others.

I've implemented the largest survey of Australia's startup ecosystem (Startup Muster), grown Australia's largest network of startup hubs (Fishburners), designed and implemented Australia's first data-focused accelerator program (FUELD) for Australia's oldest company (Westpac), and I'm now building a university-wide strategy for UTS to inspire and support technology-driven entrepreneurship at [scale](#) (UTS Startups).

I've had unpaid director positions with the Australian Information Industry Association (AIIA, the peak body for technology companies in Australia), WorkVentures (a not-for-profit focused on helping under-privileged people secure jobs in technology companies), Spark Festival (Australia's largest startup festival) and I've chaired the iAwards (the largest technology awards program in Australia).

Australia's future relies on Australia's future entrepreneurs. I'm passionate about both, and my life is now consumed with implementing a strategy at UTS to inspire all students to see entrepreneurship as normal, desirable and accessible, and to then support all student-launched startups to continue and to grow.



AUSTRALIAN FINANCIAL REVIEW ARTICLE ON MURRAY HURPS "LITTLE FISH IN SYDNEY'S SILICON VALLEY"

Lessons learned

Entrepreneurship is not what people think it is. For me, entrepreneurship is choosing what you work on for yourself, instead of being told what to work on for someone else. You can decide what to work on, and own what you create. You can be your own boss, set your own schedule, work on technology that excites you, and create the change you want to see in the world. The world is created by entrepreneurs, but more people need to understand the true nature of entrepreneurship for its potential, and theirs, to be achieved.

Inspiring entrepreneurship is very different to teaching entrepreneurship. Teaching entrepreneurship often results in a set of learning outcomes that are broadly applicable, but not particularly useful in inspiring people to pursue this as a career. Inspiring entrepreneurship requires a different approach to teaching entrepreneurial skills, and both are needed for entrepreneurs to be created.

Individuals are smart, but systems are rarely designed intelligently. Universities are full of intelligent and hardworking people, but rarely does someone have the opportunity to step back and design the ideal arrangement of components to achieve a new outcome for the university, and particularly someone that isn't subject to the normal incentives and career considerations that people inside universities typically are.





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“TO BE NUMBER ONE ENTREPRE-NEURIAL UNIVERSITY IN MALAYSIA BY 2023 AND ASIA BY 2030”

**NIK MAHERAN
BINTI NIK
MUHAMMAD**
UNIVERSITY MALAYSIA
KELANTAN

Catalyst of Change



I have been trusted with multiple, distinctive leadership positions since joining University Malaysia Kelantan in 2012. May of 2019 marked another history in my book of achievement where I was selected among many other intelligentsias at UMK as the Senior Director for Entrepreneurship Institute (UMKEI). The main task is to lead the entrepreneurship agenda of the university; hence liable to perfectify the university's vision to become the premier entrepreneurial institution of higher learning in Malaysia and rise to be the top entrepreneurial institution in Asia. My passion in entrepreneurship and innovation undertakings coupled with leadership abilities have allowed me to face challenges while holding this important post with ease. Those contributions also granted me the opportunities by several renowned bodies – both international and national - to conduct research and carry out more entrepreneurship projects and honoured me the appointment as a President and Vice President of various international and national Associations. No sapphires or diamonds could give me happiness than to see those under my surveillance bloom into successful individuals. A few programs which I designed, was having the entrepreneurial impacts. Students that I coached has moulded into successful entrepreneurs; Micro entrepreneurs that I mentored had up-skill their business and boost their entrepreneurship knowledge. I thank the Almighty for bestowing me the knowledge that makes me a good leader, a wise change maker and an active role player in the development of the university and community. Thus, the contributions make me worth to be presented as the prestigious entrepreneurial leader of the year accolade.



Lessons learned

The road to be entrepreneurial catalyst in higher institution is often a treacherous one, filled with unexpected detours, roadblocks and dead ends. There are lots of sleepless nights, plans that don't work out, funding that doesn't come through and proposals that never materialize. There are always people who want to push you down and many eyes that like to see you fail. There would also be people who always mimic you by not agreeing with your ideas. Yet, you later discover the ideas you presented are then accepted with a different name engrave on the working paper you earlier drafted. Despite all these bumpy roads that I have to pass through, the aims and dreams of bringing the university, students and society to fruition have never faded. My entrepreneurial spirit is regulated further as I yearn to see the success of others namely students whom I have trained for 'decades'. The final say to those who like to undertake a similar path must; Do it for a PURPOSE – A clear vision of what to be accomplished should be laid. You must continuously regulate attention and genuinely believe of a single-minded commitment to the goal to keep pushing ahead; Secondly, SUSTAINABILITY – You must think of long term and should be guided by desires to create something that outlasts or create a brand that has longevity and becomes an institutional. You must leave behind an innovation that improve people's lives in some tangible way.



■■■

**“BEING A LEADER
FIRST AND FORE-
MOST MEANS BUILD-
ING A COMMUNITY
OF PEOPLE WHO ARE
ALL STRIVING TO
ACHIEVE THE SAME
PURPOSE.”**

WENDY KERR

UNIVERSITY OF AUCKLAND

Unleash your potential with the University of Auckland

Wendy Kerr leads the Centre for Innovation and Entrepreneurship (CIE) at the University of Auckland. Its mandate is to unleash the spirit of innovation and entrepreneurship among students and staff to ultimately create a more economic and socially prosperous New Zealand. Her visionary leadership has enabled maximum impact through convincing staff at the University of Auckland to release capital and energy to create facilities, human resource, programmes and other initiatives for the support of entrepreneurial students and staff at the University of Auckland. When Wendy first started at CIE, it was a small centre with only 2 programmes in operation, a small team of 4 and no physical presence on campus. Wendy's entrepreneurial leadership approach

has involved running the University's innovation and entrepreneurship centre like a start-up. She has had a single-minded vision, assembled a team of driven and entrepreneurially-minded staff, known the value of quick-wins to propel long-term goals and has attracted funding to scale-up. Through being agile, responsive, taking risks and being prepared to fail, Wendy demonstrates to her team and students what it is to be entrepreneurial. Under Wendy's leadership the CIE has expanded to a team of 14, created a prototype innovation hub, a full-scale state-of-the-art innovation hub and maker space and an incubator. She has also led the creation of initiatives and programmes that have resulted in a 320% growth in student participation.

Lessons learned

Love what you do, your vision and your team. There is a saying in New Zealand: 'He aha te mea nui o te ao. He tāngata, he tāngata, he tāngata. What is the most important thing in the world? It is people, it is people, it is people.' Create a team culture purposefully, and nurture that culture to ensure your team have the best environment for them to excel in. This means respecting your team members for their individual strengths and diversity of knowledge and opinions, allowing them to be vulnerable and open when they are experiencing difficulties, and empowering staff to make decisions and have full ownership of their projects.



Entrepreneurial Educator of the Year

Finalists

PRAKASH KOIRALA

MEDHAVI COLLEGE

Entrepreneurship education to financial capability: Way forward for financial freedom

I have been engaged in financial education and entrepreneurship education sector for over 9 years. Throughout this period, I have dedicated my time specifically in developing financial education and entrepreneurship curriculum, policy supplements to Higher Secondary Education Board, Central Bank of Nepal, Nepal Bankers' Association, various MFIs and 179 Colleges. I am persistently in a job to make my contribution in entrepreneurship education aiding "One Entrepreneurship Semester in One College" campaign of college and universities. It is a trivia that Finscope Survey conducted in 2014 raises the curtain that only 67% of the total population of Nepalese youth had access to Finance. Thus, I have been endeavouring my best to trigger the financial literacy and entrepreneurship education campaigns, helping college and universities in designing and developing courses, improving the teaching systems, tapping the Small and Medium Enterprises with in region.

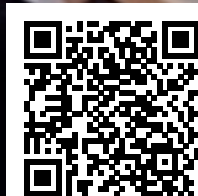
During the first three months' education, we give everyone a piggy bank so students can start saving. After a month, we follow up and help them break their piggy banks and whatever amount they have in there, we help them deposit into a formal bank. The next month, we help them prepare a business plan through the nearest banking institution—the goal here is to become self-sufficient in generating income. Microfinancing is expanding here in Nepal, where banks provide loans with no collateral to help alleviate poverty and promote small-business growth. We are trying to build an ecosystem where community groups can obtain these loans but with the proper guidance and mentorship.

I have trained more than 146000 young people about entrepreneurship education, which is dedicated to enhancing the entrepreneurial capabilities of them. This involves giving all youth the knowledge to make wise financial decisions, the opportunity to accumulate savings, opportunity to pitch their business idea and the skills to promote their start up idea too. I am taking a lead in this sector and motivating other college/ universities/venture capital and related stakeholder to take action. Since 2012, youth age from 19-23, they are already in a start-up business path, inspired by this project. I have reached almost 48 districts out of 75 districts.



■■■

"WE ARE CURRENTLY WORKING WITH CENTRAL BANK OF NEPAL TO DESIGN THE CURRICULUM OF FINANCIAL EDUCATION AND ENTREPRENEURSHIP EDUCATION, WHICH WILL BE IMPLEMENTING THROUGH MINISTRY OF EDUCATION."



TRINA MYERS

JAMES COOK UNIVERSITY

Creating tomorrows innovators by embedding a techno-preneurial culture across degrees

I saw an opportunity to address the skills gap in coveted high-order/soft-skills such as Design Thinking (DT), creative-thinking and problem-solving during the 2015 refresh of the Information Technology degrees at James Cook University. Instead of creating one capstone subject in DT (the most common implementation), I decided to implement a unique longitudinal-learning strand of DT subjects across the 3-year degree.

I developed the unique "IT@JCU" Design Sprint as an "authentic assessment". This two-day off-campus event is a major component of the DT strand that brings together all IT students, educators, regional community and ICT industry to solve grand challenges and all stakeholders gain from the experience (win/win/win): <https://www.youtube.com/watch?v=2zPxPSHCqdw>. The Sprint has gained so much attention that it now has over 40 companies fly into regional North Queensland (Townsville and Cairns) to take part.

There are no other regional universities that can claim they draw major companies to invest money in attendance, sponsorship and prizes for what is basically an undergraduate assessment piece. Regional universities in remote locations often struggle to engage large metropole-based organisations as industry partners in education, which means that regional students do not have the same close connections with industry as their metropole counterparts. Certainly, local industry partners are highly engaged with the university but student access to large organisations such as IBM, Oracle, etc is limited.

Results now show IT@JCU graduates are applying for and successfully getting coveted graduate positions due to their capabilities in DT, ideation, interviewing, pitching and empathy matched with well-developed technical skills.

Lessons learned

Aim for bigger than big, even if you only reach big you are still winning: After the success of the 2015 DS, I recognised the start of something I could grow into something great. I knew we would have all 1st-3rd year students in 2017 so had already outgrown the terminal. Townsville Airports offered the use of a large hangar, which caused great excitement for the students. We have continued to grow bigger each year with more industry partners and students.



2019 TESTING LOW-FI PROTOTYPE WITH SME DAY 2 PRIOR TO FINAL PROTOTYPE AND PITCH.



RUARI ELKINGTON

QUEENSLAND
UNIVERSITY OF
TECHNOLOGY

Prioritising Creativity and Entrepreneur- ship at the University for the Real World

Creative Enterprise and Entrepreneurship (KKB380) is the first Queensland University of Technology unit of study to address directly the challenges and opportunities of entrepreneurship within the Creative Industries (CI). QUT is also the world's first University to establish a Creative Industries faculty and it remains the largest CI faculty within Australia. Developed, and delivered by QUT Lecturer in Creative Industries Dr Ruari Elkington, student engagement in KKB380 has allowed the concepts of entrepreneurship and innovation within contemporary creative industries to be richly understood.

Through sustained collaboration with embedded Work Integrated Learning (WIL) partner Creative Enterprise Australia (CEA), students have gained crucial real-world insights into not only the dynamic nature of entrepreneurship, but of the distinct nature of Creative Industries entrepreneurial activity. This direct articulation of both the creative thinking of CI students with traditional enterprise skills is an important development for entrepreneurship education beyond that of traditional business education.



Lessons learned

As an educator of emerging entrepreneurs I find the most compelling advice in the field is often the hardest to implement - particularly in the area of risk taking and the "need to fail". Both these elements of successful entrepreneurship are well established in the literature, but I have struggled to both convey these values to students and model these approaches in my own teaching. Universities are often risk averse. Students, increasingly, appear risk averse. But the requirement to take risks, considered and managed ones, remains fundamental to learning and to progressing in any endeavour. Running parallel to an environment that leans into considered risk taking is developing a culture that celebrates failure for the learning it can deliver. This learning can only occur if that same culture expects, welcomes and adequately reflects upon the failure process.

Developing a space to "fail safe" is often spoken about within higher education, but how often is this risk taking, failure and subsequent learning modelled by teaching staff in the design and delivery of a unit? A key learning from delivering my entrepreneurship teaching is the value students gain from a transparent approach to curriculum design. An approach that "brings students in" to the problem of how to communicate, design and deliver learning outcomes but also shows the risks taken (such as a blended online learning and an intensive two day face-to-face Boot-camp). To paraphrase Mark Zuckerberg, the riskiest thing we can do in our entrepreneurship teaching is to take no risks at all.

MUHAMMAD ASHLYZAN BIN RAZIK

UNIVERSITY MALAYSIA
KELANTAN

I'm a Fighter. 'Never Give up until I fight'

Looking back, I've never regretted following my heart when it came to making a bold career-changing move from my previous career. I always knew that what really matters is that I gave it my best shot. I have been involved in entrepreneurship activities in 2003 since I began my career as an academic staff of Politechnics Sultan haji Ahmad Shah, Kuantan. In 2015, I'm joining University Malaysia Kelantan (UMK) as academic staff. In 2014 I have completed my PhD in Supply Chain Management at Universiti Malaysia Pahang. After finished my PhD, I have been actively involved in entrepreneurship and business activity within and outside of UMK. In 2016, I am being appointed by UMK management as Deputy Director at UMK Entrepreneurship Institute. During my administration, the total company registered at my centre is 278 and involved 700 students in business compared than the previous year is 16 company and 89 students.



Key statistic

500+ students in
YoungPreneur
Academy



**"I PLAN TO BECOME
ONE OF THE BEST
ENTREPRENEUR-
SHIP MENTORS IN
UMK AND POSSIBLY
IN MALAYSIA"**



APPLYING THE REAL CONCEPT OF BUSINESS: 'LET'S LEARN AND EARN'

KULIAH UMUM UNIVERSITY ANDALAS INDONESIA

28 MARET 2019 (KHAMIS) | 08:00 WIB

TS.DRASHLYZAN B RAZIK
SENIOR LECTURER
UNIVERSITY MALAYSIA KELANTAN, MALAYSIA

ENTREPRENEURSHIP IS OUR THRUST
www.umk.edu.my OfficialUMK OfficialUMK OfficialUMK

Lessons learned

The complicated part is to fight yourself, meaning that to fight against negative attitude which comes from yourself. Second is to fight the negative things coming from outsiders. If we can overcome these elements, we will be successful. And I always follow the person who succeeds in their career such as:

- (1) Mind Your Privilege-Put things in perspective. Never forget how privileged you are to start a business and even try and make your dreams happen in the first place (Abhi Lokesh of Fracture);
- (2) Celebrate Your Wins-Create a journal where each week, you record your business wins - those small things you tend to brush past as you move to the next item on the never-ending to-do list (Brandyn Campbell of Brandyn Campbell Communications);
- (3) Change Your Perspective-Think of this as more time to reinvent your business, brainstorm, perform a competitive analysis, work smarter, etc. Is a client giving you a hard time? (Bernard May of National Positions);
- (4) Take an Inspiring Course-When I'm unmotivated, taking an online course gets me excited about my business again and provides a fresh perspective that fuels my work (Chloe Brittain of Opal Transcription and Editing); and
- (5) Take a Look Around-When I feel that I'm not as motivated as I could be, I take a look around at those I admire for their accomplishments, especially my wife. Not only is she my wife/best friend, but she's also one of the more accomplished business-people I've met (Peter George of Peter George Public Speaking Inc).



“DO NOT OPERATE IN YOUR OWN BUBBLE. STAND ON THE SHOULDERS OF GIANTS AND TAKE A SCHOLARLY APPROACH TO DEVELOPING UNIQUE OWN PROGRAMS BY STAYING UP TO DATE ON THE LITERATURE ON ENTREPRENEURSHIP EDUCATION.”

This submission spans a decade in entrepreneurship education, including 7 distinct programs. All of them are designed from an experiential learning perspective. Most of these were developed in the last 3 years and includes almost every imaginable combination of attributes: physical location, duration, depth and intensity. These programs have authentically enabled thousands of students to develop their entrepreneurial ambitions, some of whom have gone on to be founders of venture-backed startups and received a personal letter of congratulations from the likes of Jeff Bezos.

What makes my approach distinct is how, I take a scholarly approach to developing programs. That means, I don't just educate students, but also other educators and researchers. This is reflected in over 20 publications and several more international conference publication on entrepreneurship education. Two articles were picked up by a newsletter with over 10,000 recipients, one of which won a national conferences' Best Paper Award, and the other of which is the most downloaded article (ever) at the Entrepreneurship Research Journal.

My approach is also inherently collaborative. For example, one program involved 20 collaborators across 5 universities, while another involved 9 collaborators across 4 universities. Similarly, our recent book on "Visual tools for developing student capacity for cross-disciplinary collaboration, innovation and entrepreneurship" involved 31 authors on 22 chapters, contributing to an award winning 8-book series on visual tools.

I am honoured to have worked with so many talented educators and to have taught such engaged students.



MARTIN BLIEMEL
UNIVERSITY OF TECHNOLOGY SYDNEY

Seven distinct programs to develop entrepreneurial ambitions



Engagement Leader of the Year

Finalists

EHUD KEINAN

ISRAEL INSTITUTE OF TECHNOLOGY

Academia cannot stay ivory tower, should rather become a lighthouse

Prof. Keinan has demonstrated an outstanding leadership and engagement of a university professor in important public issues and ecosystems. He has demonstrated the increasingly recognized third role of the universities beyond their traditional tasks of teaching and research. He has already become a public icon and a role model for many professors and students worldwide by cracking the traditional image of the academia as a socially detached "ivory tower", and showing that university professors can and should lead the way as a moral "lighthouse". Aiming at rescuing the dense population in Haifa Bay from the dangerous, 30-year operation of ammonia imports and mass storage, Keinan has initiated and led a major public protest and legal wars, all based on a comprehensive document, known

as the Keinan report. All levels of the court system, including the Magistrate Court of Haifa, the District Court and the Supreme Court, have ruled to terminate the liquid ammonia imports to Haifa. Over 1000 newspaper articles have covered this affair, including 30 OpEd articles by Keinan himself, hundreds of TV and radio interviews, public debates and rallies of angry citizens, students, pupils, youth movements, engineers and workers. Many organizations became involved, including eight Government Ministries, 25 municipalities in Northern Israel, nonprofit organizations, and political parties. This story, which has multiple aspects, including the legal, economic, scientific, technological, social, political and national, is attracting increasing interest from outside the State of Israel.



Impact story

Ten 10 world-renowned professors, including Nobel Prize Laureate Dan Shechtman, were recruited and led by Keinan to voluntarily examine the industrial ammonia operations. They found that importing huge amounts of refrigerated ammonia and storing it in an old, unsafe, 12,000-ton tank under poor safety standards and without proper permits, threatened the lives of nearly 1,000,000 residents at the metropolitan area of about 25 towns in the Haifa Bay. In spite of a fierce PR attacks by the fertilizer manufacturer, who was supported by government officials, Keinan's unprecedented public struggle has ended with a historical triumph. Following numerous legal battles through the entire court system, the Supreme Court of Israel finally ruled not only to empty and decommission the ammonia tank, but also prohibited all imports of bulk ammonia to any port of the State of Israel. Keinan has terminated a life-threatening, 30-year operation that endangered nearly one million women, men and children.



HAIFA CITIZEN DEMONSTRATE TO REMOVE THE AMMONIA TANK, 26/2/2017



■ ■

“At a personal level I would like to develop a “second career” in popular writing to bring science and other topics I am passionate about, to new audiences.”



LESLEY HUGHES

MACQUARIE UNIVERSITY

Engaging all for climate change action



Over the past 25 years, I have established a national and international reputation as a pioneer in the study of climate change impacts on biodiversity. In addition to my research program, I have been passionate about promoting climate change science, and the risks that climate change poses to society and ecosystems. This work has been recognised by invitations to represent Australia and the university on many influential bodies and to deliver multiple keynote addresses. I am a former federal Climate Commissioner and now a Councillor with the publicly funded Climate Council of Australia, and widely regarded as one of the most active and influential climate change communicators nationally. I am also a Director of WWF-Australia, a member of the Wentworth Group of Concerned Scientists, and the Director of the Biodiversity Node of the NSW Adaptation Research Hub.

As Pro Vice-Chancellor (Research Integrity & Development) at Macquarie University, I have been the driving force to develop the Early Career Researcher Support Network, and the Primary Carer Conference Support Scheme at Macquarie University. I have also been an active participant in the university's successful application for an Athena SWAN Bronze Award as part of the Science in Australia Gender Equity (SAGE) pilot, and co-chair the Gender Equity Self-Assessment team, charged with implementing the university's Gender Equity Strategy.



Lessons learned

I have learnt many lessons on leadership in climate change communication - some of them difficult ones. I've learnt that more information does not necessarily lead to more understanding, and more understanding does not necessarily lead to more action. Instead, science communicators must think deeply about the framing of messages that resonate with the everyday lives of the people we are trying to reach. We must deliver simple messages with local interest, be honest about risks, but offer hope for the future. Striking this balance is hard, and differs for every audience. We must be brave in the face of opposition that at times is extremely strident and aggressive. We must acknowledge that advocacy is not a dirty word. We must never shy away from promoting good, evidence-based policy. At times, all these things have meant not just getting out of the ivory tower, but leaping from its battlements! Having said that, I have no regrets about becoming a “public scientist/academic”. I know I have had a far more enriched, purpose-driven and satisfying career by choosing this path than I would have had with a more traditional academic trajectory.

Leadership is about being a change agent. It's about having good ideas, then bringing people along to implement them. When faced with uncertainty as to who in power should make decisions, I have found that simply assuming I could do it has hardly ever backfired. I have faith that good ideas, presented logically and energetically pursued, will triumph in the end.



■■■
“THE UNIQUE OPPORTUNITY OF DEVELOPING A UNIVERSITY FROM SCRATCH PRESENTS ONE WITH A WHOLE HOST OF CHALLENGES AND INSIGHTS, EACH ONE OF THOSE TURNING INTO MARVELOUS OPPORTUNITIES TO LEARN.”

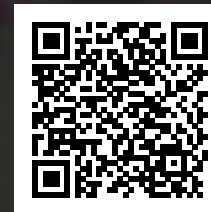
STEPHEN MAVELY

ASSAM DON BOSCO UNIVERSITY

Transformational, Visionary, Institution Builder

Fr. (Dr.) Stephen Mavelly, Founder Vice Chancellor, Assam Don Bosco University has navigated the course of Assam Don Bosco University “with a difference” since its inception in 2008. His transformational leadership has brought on board a cadre of faculty and staff at the University devoted to every process and undertaking which is the greatest strength of the University. Under his leadership, the University has been awarded “University of the Year” (among universities in existence for 10 years or less) and “Special Mention for Excellence in Institutional Social Responsibility” by FICCI (Federation of Indian Chambers of Commerce and Industry) in 2018. The selection of the University by the International Association of Universities as Global Cluster Leader in Clean and Affordable Energy is a testament to the Green Campus model of the University.

The focus has been on enhancement of capabilities in providing opportunities for students to build life skills, critical thought and intercultural capabilities; enhance research performance to find solutions to some of the major challenges faced by the world today; ensure quality instructional outcomes and stewardship of University educative processes by faculty and staff; and creating the opportunity for university students to share learning and experience in the areas of participatory community development and social outreach. The distinctive “holding environment” of the University as cascaded by the leadership of Fr. (Dr.) Stephen Mavelly, has realized the creative potential of students, faculty and staff through mentoring and support, while inspiring them to transcend comfort zones towards the achievement of goals and dreams.



Lessons learned

The absolute need to have a Concept Paper that lays out the broad vision and objectives. When finding yourself standing at an important crossroad and musing aloud which road to take, it is a call to ponder on fundamental questions, like

‘why are you doing this?’, or ‘where are you heading?’. Every obstacle, especially the intractable ones, presented an opportunity to recheck the signboards on our road; and that signboard is the concept paper.



“FROM LITTLE THINGS BIG THINGS GROW, AND FOR ME TAKING THE TIME TO CLARIFY MY VISION AND DO THE ‘SMALL THINGS’ THOROUGHLY AND EFFECTIVELY LAYS THE FOUNDATION FOR BIGGER SUCCESS - IN OUR COUNTRY AND AROUND THE WORLD!”

More women are needed to pursue STEM careers given the gender imbalance and future workforce needs. Research suggests enrichment programs can increase STEM interest but limited specific knowledge is available.

initiated a STEM Women Branching Out group (STEMWBO) at Flinders University in 2015. A first of its kind in South Australia, it supports HDR students through professional development, empowering events and peer networks, and inspires high school students. The demand for its quality services is reflected in its growth from 16 to 412 students within nine months and thriving social media communities. Initiatives to inspire school girls include the Aurora Science Photo contest - in its fourth year and expanding year on year and the STEM Enrichment Academy.

The STEM Enrichment Academy was established through Federal Government funding and reached 421 Year 9 girls, well exceeding its target through three enrichment programs with excellent participation and success in reversing student attitudes on the difficulty of STEM careers. It hosted 141 girls in a 3-day intensive STEM Enrichment conference featuring 45 sessions (hands-on workshops), tours, industry talks, teacher training and round-table discussions. The success of these unique programs has seen me named The Advertiser Woman of the Year Top Innovator!

Extensive industry and government collaboration were essential to the success of these programs and fostered financial and in-kind support. We are inspiring schoolgirls to pursue STEM at a critical time in subject decision-making; empowering teachers as advocates; supporting university students. Our research and analysis developing an evidence-base of what works.



MARIA PARAPPILLY
FLINDERS UNIVERSITY

Enriching and empowering young women to progress in STEM





Norby Roque Salonga

DE LA SALLE UNIVERSITY

Youth Leader: Dealer of Hope and Action

I am no extra-ordinary person. I have just decided to keep my eyes wide open when realities struck me and circumstances made me choose. These make my actions somehow extra-ordinary.

My various involvements in the academe, international development sector, advocacy in government (policy and executive), private sector, and marginalized communities shaped me for who I am today. It helped me to realize my life's purpose. It made appreciate that there have been so many circumstances that God has touched me through the people I have interacted with and served. I have been so blessed with a supportive family and fiends who are there with me ever since I chose to serve. I have a job that allows me to do what I love doing and advocacies that allow me to go beyond the "self" and focus on "everyone".

These are things why I am so grateful today, more than the recognition. These are also the reasons why I look at winning as an extra blessing. My life

Key statistic

250 trainings/events conducted by the nominee



Lessons learned

Leaders are always expected to be strong. Leaders are the ones with whom members can depend on, especially in times when they are weak. Leaders are the ones who take the risks and are willing to take the heat if something goes wrong. Yes, these are all true. But I have also come to realize that leaders are never expected to be always strong. We are not made/born that way. We should never be afraid to show our weakness. Because we are also human and that's exactly how our followers and members can resonate with us.

Leaders should also learn to rely on and depend onto their members when needed. Because in those times when we are weak, our members learn to step up not just for us but for everybody. I have learned that during those times, new breed of leaders step up and that is okay...Never get threatened, because that's exactly the reason why we are leaders, to build more leaders.

While leadership is about responsibility, leaders should also know that not all risks are worth taking. Especially if the risks will affect the lives of many people. Leaders are there to guide and facilitate the process of decision making as whether the risk in front of the organisation is worth taking or not. It is not our job to dictate...That's what dictators do. Leaders are there to empower and make our members co-own what we have initiated. Which is why leaders need to learn the right way of facilitation. These are the principles that I keep in mind especially when I am confronted with difficult situations and big decisions I have to make.

isn't perfect, neither do I. But the different phases, colors, dimensions, failures, challenges, and struggles that I have overcome are real reminders of me being a winner in life. If I will be named as the winner, I am grateful. If I lose, I'd still be grateful. My story is a reflection of a normal Filipino who is driven to serve and a dreamer of a better world. I want to be an inspiration to many that no matter how big or small your actions are, if you do it with love, it will reach many lives.

Thank you and I am truly grateful :)

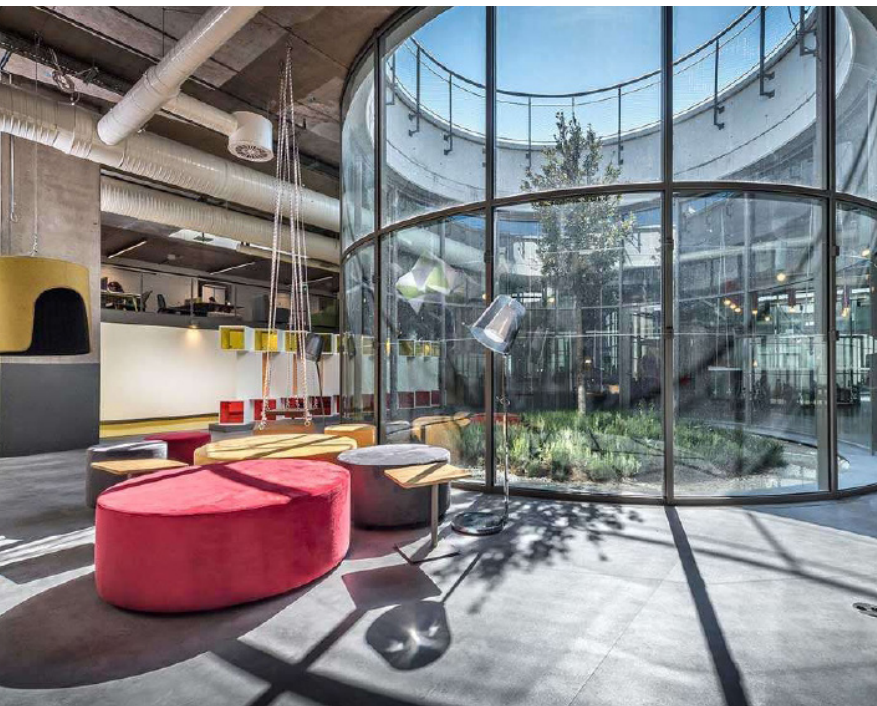


Innovation and Collaboration Space of the Year

Finalists

OZU X INNOVATION CENTER

Commitment to Explore the Unexplored



Ozu-X is an Innovation Center located at Ozyegin University Çekmekoy campus, and is the flagship building of the university campus. The building's name was picked by students after a university-wide poll, and chosen as a reference to the word "Exploration," the symbol of technology and innovation in the era of global digitalization, as well as Ozyegin University's one of key values. Ozu-X is organized around a start-up incubator led by the University, surrounded by laboratories and studio space for students. A large makerspace links all the various laboratories together by offering services to all students and incubees. The space is planned as an ecosystem that streamlines collaboration, generates Innovation and augments productivity. The place acknowledges that new ways of learning requires a new type of space.

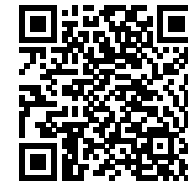
Impact story

Of all the success stories whose seeds have been sowed at Ozu-X, Metehan Emlik's is the most prominent example of student entrepreneurship, vision and hard work sprouting into a concrete product in the fertile soil of, and thanks to the philosophy and resources of Ozu-X. A first generation university student of a working class family, Metehan used to toil in local construction

sites doing electrical work in order to save up money for buying equipment to use in his high school lab. Arriving to OzU as already an electronics enthusiast and with his innovative spirit, Metehan quickly started working on the first mini drone project of Turkey, ESPCOPTER, designed to provide high school students with a platform to learn coding, programming, and flying a drone. He has been supported by the Fit Factory and working non-stop in the factory area in close interaction with other entrepreneurs. Chances are you would run into him fine-tuning his project if you stepped into Ozu-X today. He has also been financially supported and received mentorship from Fit Factory. Furthermore, in June he started a project at Arikovani (Bee-hive), a technological crowdfunding platform.* He has successfully reached the targeted threshold and the production of the 100

Key statistic

260 jobs created by the businesses that finished entrepreneurship programs



drones he sold has been going on at OzU – X Fit Factory since then.

Having already reached hundreds of children with his mini drone, Metehan is currently working on a project for manufacturing Turkey's first electrical paper airplane, the first prototype of which is already completed at OzU-X. He now aims to increase the number of children he has reached through his projects from hundreds to thousands with the technology that will fly into the farthest corners of Turkey and the world to carry STEM education.





CASPIAN ENTREPRE-NEURSHIP CENTER

Achieve unlimited opportunities with us

Entrepreneurial initiatives are still in the early stages of development in the Mangystau region and also, international in the Caspian Sea region, mainly because of the historical and political heritage of the country/region. In order to develop entrepreneurial competence among the youth of the Caspian region we have CREATED the Caspian entrepreneurship centre (CEC) in Mangystau

region The Caspian entrepreneurship centre is the only centre in the region that provides entrepreneurial education in three languages (Kazakh, Russian, English) and works 24/7. This means our participants, students can come and work on the project at any time, we also want to note that the door of our centre is always open not only for our students but also for all youth of the Caspian

region. Another uniqueness of our centre is that we provide all services for everyone free of charge. Our main strategic objective is "to become a regional centre of entrepreneurship excellence" and for achieving this objective we have developed yearly action plans with appropriate budget allocation. As a visible result of our first-year efforts is the creation of the Caspian Entrepreneurship Centre



"YOU DO NOT LEAD, POINTING AND TELLING PEOPLE WHERE TO GO. YOU LEAD BY GOING TO THIS PLACE AND DOING BUSINESS (KEN KESEY)."



Lessons learned

Teaching using force and command is obsolete. This is a generation of producers of future leaders walking hand in hand. Do not waste hours trying to convince people. Instead, demonstrate the benefits of a particular solution with your own actions. You cannot expect others to do what you would not do.

– a successful initiative that seems to get growing attention from young entrepreneurs. For only one year our center trained more than 200 youth of the region also more than 100 teachers and supported many social, business projects. How CEC will create value? Intellectual – CEC definitely will contribute to the intellectual capital of the region. Individual entrepreneurs have enlarged their own dreams and initiate to express their creativity and innovation that have helped their businesses so CEC participants will benefit from the ideas of their peers and coaches. Social – CEC create new networks among entrepreneurs, setup fruitful links between entrepreneurs and coaches aiming at creativity development and bringing ideas to the market Individual – CEC will help individual entrepreneurs, coaches, recruiters, and service providers to develop new skills, and to make the most of them.





SWINBURNE FIRE STATION

Sparking Innovation and Fuelling Growth through Collaboration, Creativity and Know-how

Swinburne University of Technology has a focus on innovation and delivering impact from its research findings. This mission is actively progressed in a number of innovative ways including the creation of its Innovation Precinct hub – The Swinburne Fire Station - with a remit to: engage and build a culture of innovation with staff and students across the university's faculties and research centres; upskill and grow enterprise; and connect innovators with industry and investors to enable the rapid scale-up of research-led ideas into real-world solutions. Uniquely this hub combines various elements to enhance effectiveness including: The Innovation Precinct Team; the Design Factory Melbourne (DFM) Team; a thriving start-up community including Swinburne's new and rapidly growing start-up The Data Experience; and an Amazon Web Services Cloud Innovation Centre (AWS CIC) with a focus on Data for Social Good projects. Rounding out the Innovation Precinct and inter-connected with the Fire Station are the Factory of the Future – a hub for industry exploration of new technologies and digital connectivity; and the Digital Innovation Lab – a lab focussed on the translation of digital research into impactful outcomes.

In the Swinburne Fire Station two commentary teams, the Innovation Precinct team and the DFM team, work side by side to encourage innovative ventures to thrive. The Innovation Precinct Team host various programs supporting the creation of new ventures. DFM, one of the founding members of Design Factory Global Network, a network of 27 Design Factories around the world, focus on the creation and early validation of new ideas. Supporting DFM's work is another unique feature of the Fire Station, being a permanent video link to Global Network and other collaborators around the world. DFM's main activities are geared towards community engagement for fostering innovation culture, innovation and design thinking programs for all Swinburne students, interdisciplinary research and short-term skill development and training.



DESIGN
FACTORY



Unleash Space



Unleash your potential with the University of Auckland's Unleash Space

Unleash Space (Kura Matahuna) is a radical concept for the University of Auckland. The first truly inter-disciplinary, creative, practical learning space on campus. Impressive, impactful and highly visible, students from all faculties can come together to this centrally located innovation hub and maker space to be inspired and learn about entrepreneurship. Having an inter-disciplinary team from across the University behind the founding of Unleash Space has helped to ensure that it serves students of all interests and backgrounds.

Unleash Space was created out of the space formerly occupied by the Engineering Library. Its de-

Key statistic

\$NZD 9.6 mil sponsorship for Unleash Space



Lessons learned

Universities are by nature risk-adverse environments. To create a start-up in an institutional environment is challenging and as much an exercise in public relations as it is project management. Our advice is that winning the hearts, minds and imaginations of senior stakeholders and prospective sponsors is essential to be able to open up permissions and opportunities for your I&E space to exist.

A major turning point was the creation of a prototype. The Director of the Centre for Innovation and Entrepreneurship was inspired by the story of Walt Disney who at the creation of every Disney park would start and complete Sleeping Beauty's castle first. The castle encapsulated the dream and vision of the parks and once complete would assure all the workers and detractors that it would become real. The Dean of the Business School gave permission for a disused reception area near administrative offices in the Business School to be turned into a small innovation hub to be used by members of the Velocity student entrepreneurship club. The space was transformed through quality furniture, the walls and floors being brought to life with vibrant decals, inspirational quotes writ large on walls and the installation of an enormous digital touch screen. The new space was embraced by students who congregated there en masse. Once people could see such a space in real life and the power it had to bring together students of all disciplines to network and collaborate, it empowered staff to go on to build Unleash Space.

sign evolved from inspiration from the very best university makerspaces in Europe and the United States, adapted for local needs and identity. Local culture has been considered with identity signage in Māori language to be inclusive of our indigenous community.

Our strategy to entice this new generation into venture creation has included appealing to students with use of equipment and then showing them the allure of entrepreneurship as they make the journey from playing to inventing to prototyping. Beyond being a place where inventions can be prototyped, the majority of extra-curricular programmes delivered by the Centre for Innovation and Entrepreneurship have been run at Unleash Space since its opening. Unleash Space has exceeded all expectations in terms of student usage. Since its opening in 2018, thousands of people have attended programmes, equipment training sessions, workshops, events and mentoring sessions. The successful use of recruitment tactics employed, and resulting extraordinary response that Unleash Space has had is evidence of the appetite from this current generation to be equipped to become entrepreneurial-minded revolutionaries.



IQX UNIVERSITY OF WESTERN AUSTRALIA

Transform your
business at IQX



At IQX, we help small to medium enterprises (SMEs) grow, scale and commercialise. We believe in bridging the gap between industry and academia. The 'X' in IQX stands for knowledge exchange: the exchange of knowledge and ideas between researchers and industry encourages creativity, disruption and innovation. Since 2018, IQX members have secured more than AUD\$2 million in investments and generated 46 new jobs. In just one success story, digital health company Progressive Medical was acquired by Curve Tomorrow and is now working to improve the lives of 1 billion people worldwide. In a unique operating model, IQX is an innovation and collaboration space powered by a partnership between The University of Western Australia and Business Foundations, the largest not-for-profit business advisory service in Australia. We combine our resources to facilitate partnerships that have far-reaching benefits for SMEs, students and researchers. IQX's members have access to academic expertise, student talent and alumni networks, while the University's students and researchers can tap into the knowledge and capacity of IQX members, who work across tech start-ups, social enterprises and investment firms, medtech companies and consultancies. Further, IQX is a member of the Asian Association of Business Incubation, the region's only network of business incubators and co-work-



**“UWA IQX IS EVOLV-
ING FROM OPERAT-
ING AS AN INNOVA-
TION SPACE INTO AN
INNOVATION PRE-
CINCT.”**



Triple E Awards

94

15.000+

Total visits to IQX



**COLLABORATIVE
BREAKOUT ZONE**

ing spaces. This gives IQX members access to over 8,000 spaces across Asia and market entry to an extensive ecosystem of partners and customers. With a unique focus on growing SMEs through university collaboration, IQX is committed to nurturing innovation in the region.

Lessons learned

Operate the innovation space like a sustainable business. Innovation spaces aren't primarily about making money. However, charging for access and use of facilities allows universities to sustain high quality operations and services. It means the space has resources to grow as your members scale, and sustains high quality services which further drive business growth. Sustainability creates a virtuous cycle for university innovation spaces.

Build partnerships and find your niche. Innovation spaces exist to increase the impact of the wider ecosystem. By partnering with existing innovation spaces, you can leverage their learnings and ensure your space doesn't duplicate available services, allowing your space to attract a new audience.

Find the entrepreneurial people in your university to facilitate collaboration. Managing an innovation space requires a level of entrepreneurship. Use the innovation space to draw out the entrepreneurial talent within your own university, and leverage these people to facilitate collaboration between members and the wider university.

Hold events, lots of them. Events and networking functions bring university, community and industry people to the space. The innovation space has a duty to facilitate collaboration between the university and industry. Public events are a low-barrier method of kick-starting connections, learning and collaboration between people who otherwise wouldn't make contact.

Keep it fun. Innovation is hard work. For the first time entrepreneur or innovator, it can be a very stressful experience. The innovation space should also be a place to socialise, promoting health and wellbeing to members whilst growing their business.

Innovation Challenge of the Year

Finalists

NOVATE

CHITKARA UNIVERSITY

Let us make a difference to somebody near us



Key statistic

184 prototypes/POCs displayed



NOVATE is the annual innovation challenge of Chitkara University. Each year we identify problems, which affect our lives and of those around us. We call upon thinkers, innovators, makers and implementers to find innovative solutions to the problems, so that we can make a small difference to somebody near us. NOVATE is organised in three different verticals for addressing problems from different domains:

1. NOVATE (Annual Problem Solving Challenge for Communities)– Identification of problems of community partners (b) Village panchayats and (c) K-12 schools, working for 8 months cycle every year (from Oct to March next year) to find solutions to these problems. This is being done through the sarpanches of the five adopted villages, NGOs and NSS wing.

2. NOVATE+ (Annual problem solving challenge for campus): Chitkara University hous-

es 10,000 students and 2000 employees on any given day. This township faces challenges on day-to-day basis, which requires multidisciplinary solutions to emerge out. These problems are similar in campuses of HEIs of the region. NOVATE+ would identify these challenges and encourage students to work and find solutions, for which they earn credits. Industries such as NXP, Applied Materials, Mahindra and Mahindra endorse this movement.

3. NOVATE++ (Annual problem solving challenge for SMEs): Being in the land of entrepreneurs and jugad innovators, Chitkara University has established close tie-ups with SMEs. NOVATE++ hackathon will focus on SME problems and PG and PhD students would work in CoEs and research centres to find solutions to their problems.#

The uniqueness of the NOVATE is in its purpose and continuity, and that it lets students to earn credit for each problem they solve. The focus of each vertical is on a set of stake holders and yet it weaves intricately into the academic framework. NOVATE lets students from different disciplines to come together and bring workable solutions to the table, letting longitudinal and lateral movement of knowledge and skills.



Impact Story



It started with a first year student, who came from a decent background and went on to community engagement trip to a nearby village in her very first year of graduation. On her maiden visit to the village, she found that most of the houses in the village did not have potable water. The water from the tube-wells was contaminated with pesticides and the villagers were not even aware of the water quality that they were drinking. Deeply moved, She approached her chemistry teacher, who also happened to be a water scientist and questioned "Madam, what is the use of your high quality research papers, if its outcome cannot provide real value to the most needy?" The duo then went on to form a water literacy club and also conceptualised and designed the low cost water filter made of earthen pot and processed risk husk as water purifying system. Soon the network of NGOs came to help by and 500 earthen pots were distributed nearby as part of CSR of the university. The rural population got benefitted. Today 'Swachh-Neer' is all set to become a social start up and is looking out for funds to scale up.

Yet another PhD student who was working on speech and multimodal processing area, once came across a troupe of kids from a blind school, who were part of an educational trip to the university. While shaking hands with one of the kids, he found that his finger tips were really rough. On questioning, the otherwise chirpy kid told that it is because of using the braille slate (which requires punching of the cards using sharp stylus) that his finger tips were rough. The PhD student, who is from an humble background went on to make an award winning product "Briltab Edukit" which circumvents the use of mechanical stylus with that of a magnetic one. It also has the vernacular speech support, which makes a blind person speak, write and hear back in vernacular language.



TOM@University
SWINBURNE UNIVERSITY
OF TECHNOLOGY



Co-designing ability – TOM@University shifting the paradigm of assistive solution development

TOM@University program is the first of its kind; a unique three-way partnership between a global philanthropic organisation, inter-disciplinary student teams within a university and Need Knowers who want solutions for individual challenges in their daily lives. The program shifts thinking in the way assistive solutions are developed. All too often people living with disability have products designed 'for' them, and not 'with' them. TOM@University is unique because Need Knowers and student teams co-design solutions together. The experience is collaborative, iterative, human-centred, and is an example of the melding of three diverse disciplines that results in bespoke products that have a real and direct impact on people's lives. The program

Key statistic

Six life-enhancing solutions created



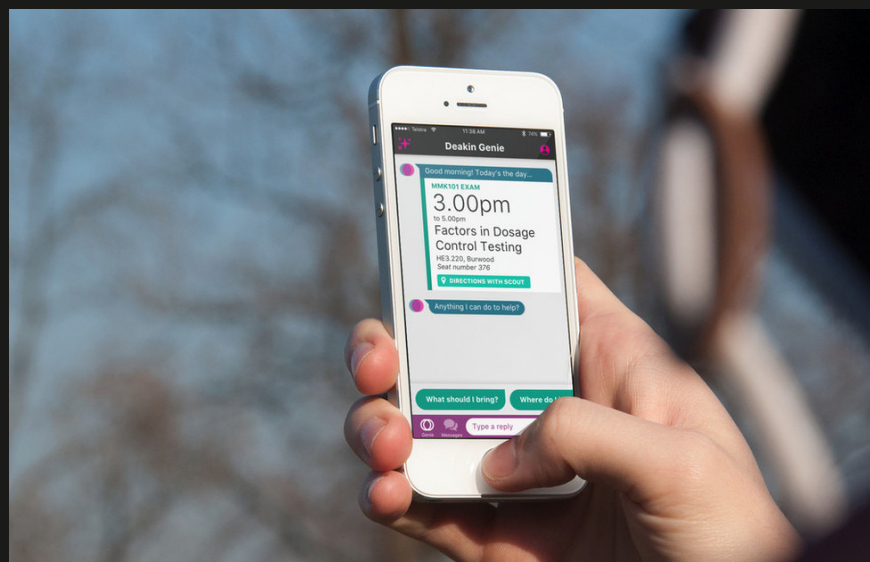
Impact story

People living with disability are used to devices being done 'to' them not 'with them'. Enacting the disability inclusion call 'nothing about us, without us', TOM@University is a game changer where Mandy, Lou, John, Mary and many other 'experts by experience' challenge, collaborate and connect with university students. The design journey lasts many weeks, involving wild ideas, dead ends, lots of laughter, research, cardboard and glue. These journeys into the unknown might involve 3D printers, laser cutters, and more, but at their heart they involve a deep engagement with each other, a mutual exchange of knowledge, and a deep respect for diversity.

The journey doesn't stop here. A team of dedicated Engineering students take the innovative ideas developed by Design and Occupational Therapy students and turn them into fully fledged functioning solutions. As a result, Need Knower Mandy can now independently go outdoors and inside using her wheelchair cleaning station, Jules can go bowling with mates, John will be able to walk his dog and Mary can sleep better on her travels.

Equally, the engineering students receive tremendous motivation from working with a real client, developing unique, non-standard solutions that have the potential to change someone's wellbeing and quality of life immediately. They often went more than the extra mile to make it work and the gratitude from the Need Knowers at the end of the process is extraordinarily empowering. Students will graduate with confidence that they are able to solve tricky and unique challenges.

disrupts assistive technology and device industry as part of a larger healthcare industry paradigm shift. It creates economic and social impact in a unique way as the aim is to create as affordable solutions as possible and all outcomes are open-source, available for everyone through the TOM:Global digital platform. The solutions to date include an automatic wheelchair cleaning station, a bowling-launching device, a dog walking solution for a quadruple amputee, a pickup stick, flotation suit and anchorage for hydrotherapy and cleaning & storage-unit for a CPAP mask (last 4 in the product development phase). Furthermore, the program harnesses global reach in a scalable way, as overlaying two networks (TOM:Global and communities across the globe and Design Factory Global Network) enables effective dissemination of the outcomes and internationalisation of the program.



DEAKIN GENIE

The smart, personalised, digital assistant designed to help students succeed

'Genie' is Deakin University's new digital foundation for building a model of education that embraces the behaviours, needs and expectations of a digital generation.

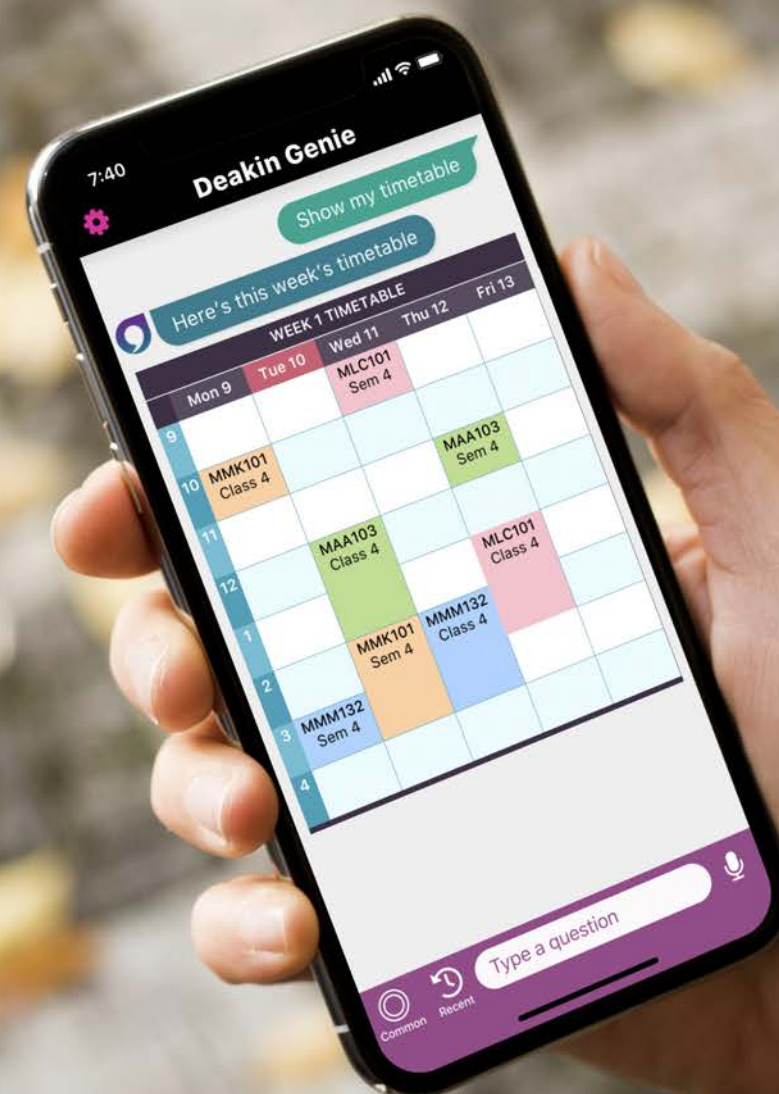
Powered by artificial intelligence and machine learning, the smart personalised assistant proactively guides students through complex university and academic processes. Students are encouraged to download the application to their smartphone and can ask Genie about almost anything to do with university life, using a familiar chat interface and voice recognition.

Genie responds quickly to student's requests with helpful information when they need it, where they need it, including: (1) Briefings about what's coming up next and where, (2) Timetabling and assignment due dates, (3) Referencing and study support, and (4) Required unit readings and resources.

Certain conversational cues will also intuitively trigger Genie to connect students to peers, support staff and teachers when the need for human engagement arises. The application provides conversations and responses using natural language processing, drawing on content from enterprise systems to provide a seamless, hyper-personalised user experience. Genie's effectiveness also goes beyond Deakin's boundaries, as it's designed to integrate with external digital assistant services such as Apple's Siri, Google's Assistant and Amazon's Alexa.

Genie is constantly 'learning' about students' preferences; academic progress; interactions with the university environment; and learning content. It doesn't just react to queries, it also predicts needs, automatically undertaking repetitive tasks, prompting with 'just-in-time' information; assisting with planning and motivation. It's able to alert students to time-critical information via opt-in notifications; from emergency information through to the latest cafeteria promotion.

Genie allows Deakin to be further attuned to students' ever-evolving individual needs. By gathering and analysing data, the app provides a myriad of information to make calculated plans and decisions about how Deakin can improve the design and delivery of services, ensuring the University addresses students' requirements now and into the future.





TuBee presents
their honey
innovation at the
VentureShowcase
2019

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“THE KEY FOR US IS TO MAKE ENTREPRENEURSHIP ACCESSIBLE AND ATTRACTIVE TO ALL DISCIPLINES, CULTURES, GENDERS AND AGE GROUPS, BECAUSE ENTREPRENEURS ARE PROBLEM SOLVERS WHO ULTIMATELY PROVIDE THE SOLUTIONS TO MANY OF LIFE’S PROBLEMS, BIG OR SMALL.”



All winners at the 2018 eChallenge black tie awards dinner



Australian eChallenge

THE UNIVERSITY OF ADELAIDE

Making Ideas Fly

The Australian eChallenge prepares and nurtures budding entrepreneurs to thrive in an uncertain, dynamic and fluid environment. The program guides participants through the process of creating, developing, assessing and actioning ideas. It provides the tools, interaction opportunities and mentorship needed to begin an entrepreneurial story. Since 2001, more than 7,400 domestic students have successfully completed the program, and we have helped launch 1,103 start-ups, and awarded prizes worth over \$3.5 million.

Unique from other similar entrepreneurship programs or competitions, ours is governed by the RITE framework (Relate, Innovate, Test and Expand), developed in-house along Design Thinking principles. The first step in this process, Relate, encapsulates the essence of the program, which is that the entrepreneurial journey is an inside-out, bottom-up approach that starts with the individual. We instil participants with an inductive learning philosophy; that is, the idea that they must harness their own network and human capital to begin.

Throughout the program, participants are exposed to a plethora of opportunities designed to help develop their idea, develop practical entrepreneurial skills and abilities, generate IP, validate the need for their innovation, and build a professional network. One of the distinctive opportunities and potential advantages for participants, creating a potent motivator to excel, is the ability to access our network of incubators that span the globe: Adelaide and Waite in Australia, Singapore, Chalon-en-Champagne in France, and from early 2020 Christchurch, New Zealand.



Lessons learned

The eChallenge team follow their own advice – always evolve, learn to fail well, take calculated risks, and seek validation. Our program content never stands still. We listen to feedback and constantly develop and refine our teaching and assessment methods, establish more opportunities for students to access mentors and tap into networks, and encourage students to pursue parallel entrepreneurship opportunities (for example, the Entrepreneurs Organization’s Global Student Entrepreneurship Awards). This year, we reorientated the program along a Design Thinking framework and focused more on building personal initiative. Our hope is to start measuring not only how many start-ups are launched from the eChallenge, but how students evolve and develop entrepreneurial capabilities that they can then apply to their own field of expertise.

For the eChallenge, this translates as a measure of our impact on our community and the economy. The constantly surprising and humbling element of the eChallenge, is how often we are able to impact people’s lives. Many students from such diverse faculties as economics, arts and computer science undertake the eChallenge simply as a degree elective, but in the process discover their passion for innovation and entrepreneurship. Over the years, hundreds of students have switched degrees, started businesses, formed new connections and found employment as a direct result of the eChallenge.



TJU'S 3E STRATEGY AND ACTION HAS BEEN LEADING CHINESE ENGINEERING EDUCATION, AND HAS MADE SIGNIFICANT IMPACT ON THE GLOBAL ENGINEERING EDUCATION.



With the boost of TJU, the 3E concept and CCII have made great impact in China. TJU has implemented the CCII Plan, involving 14,154 undergraduates and 14,600 graduates. Following the release of CCII and many presentations and publications of the TJU's exploratory experiences, many universities make their own plans. TJU has become the centre of 3E movement in China and MOE has formally established National Innovation Centre for 3E at TJU. Chairman LI Jiajun was appointed to Chairperson to lead the 3E initiative in China. TJU has also contributed to global engineering education by hosting international symposium and establishing IAEEE and presented a keynote lecture at 2019 International Conference on Axiomatic Design in Sydney. TJU have designed and built interdisciplinary education platforms on university-level and school-level, integrating the resources of the university, industries and governments to form an education community for 3E.

EMERGING ENGINEERING EDUCATION (3E) PLAN

TIANJIN UNIVERSITY

Emerging Engineering Education: Coping with changes and shaping the future

The Emerging Engineering Education (3E) Plan was initiated by Chinese Ministry of Education (MOE) in 2016. It aims at educating future engineering innovators for a global world. The 3E plan calls for a new round of engineering education reform to transform the traditional engineering educa-

tion mode. Tianjin University (TJU) took a leadership position in triggering the reform. TJU proposed the 3E Roadmap in 2018, known as Tianda Action, and launched the International Alliance of Emerging Engineering Education (IAEEE), consisting of 56 universities from China, France, Ireland, Singapore,

Thailand and US, to address the challenges faced by global engineering education communities. In 2019, TJU released its 3E Plan, namely Coherent Collaborative Interdisciplinary Innovation (CCII) Plan to prepare the future engineering innovators and leaders with high moral and ethical standards.



ESTABLISHMENT OF 3E INSTITUTES

Innovation and Entrepreneurship Support of the Year

Finalists

UNSW FOUNDERS PROGRAM

Building Australia's most comprehensive university entrepreneurship program



Key statistic

25.000+ individuals engaged in entrepreneurial skill building workshops

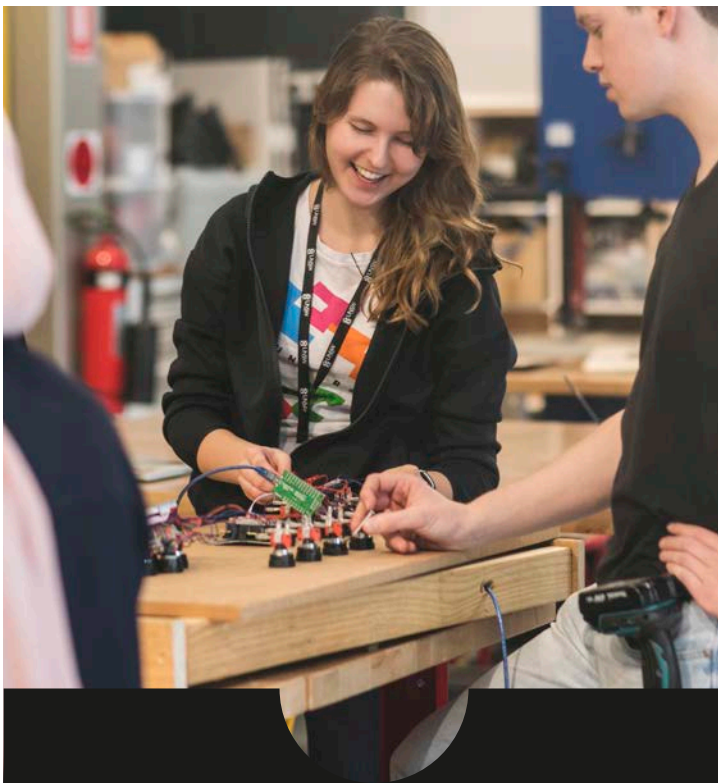


UNSW is answering the challenges posed by the rapidly changing world of work by delivering to our students, staff and alumni Australia's most comprehensive university-based entrepreneurship initiative, the Founders Program. Comprising 11 initiatives, this program has been designed to embed entrepreneurial skill building at scale within the university community, while also identifying and supporting exceptional entrepreneurial talent to launch startups with global impact.

The unrivalled commitment by an Australian university to building a robust program, delivered by a team of industry experts and deeply engaged with the startup ecosystem and investment community, has borne fruit. In only two years, the Founders Program is a large and thriving pipeline for technology startups who are delivering genuine innovation for the benefit of our economy and society.



“OUR PARTICIPANTS HAVE DEMONSTRATED A STRONG DESIRE ENSURE THEIR COMPANIES ARE FINANCIALLY SUCCESSFUL, BUT ARE ALSO CONTRIBUTING POSITIVELY THE WORLD.”



Impact Story

Launched by co-founders and friends Martin Karafilis, Marcel Herz and Christopher Sampson while they were undergraduate students, Tilter is a technology startup that is revolutionising the supermarket checkout while reducing plastic waste on a global scale.

This innovative startup uses artificial intelligence and machine learning to teach supermarket checkouts to recognise products without the need for barcodes or manual selection. By replacing barcodes, Tilter is creating faster, easier and digitally advanced checkout processes, and providing a more sustainable shopping experience.

Aside from the technology, the driving force behind Tilter is the urgent need to reduce the amount of plastic waste that is being produced for product. “The top two supermarkets in Europe produce over 800,000 tons of plastic a year, so we started to realise that that was more of a focus for us than anything. The whole idea is that we can replace barcodes, and therefore take away the need for the plastic packaging,” said co-founder Martin.

Despite their big vision and innovative technology, the Tilter co-founders faced an enormous hurdle; “We came from big, corporate companies. We weren’t really involved in the startup scene or entrepreneurship in general. We thought that we were just good businessmen, or that we had good technical skills,” Martin said.

Recognising their talent and potential, UNSW Founders Program managers accepted Tilter into the flagship 10x Accelerator program, where they received their first masterclasses in lean methodology and corporate strategy, were matched with industry mentors and were introduced to investors. “Having that sort of community, people to talk

to, people to bounce ideas off is really good. That’s something that money can’t buy,” Martin said.

A year on from their 10x experience, Tilter has experienced astonishing success. In 2019 alone, Tilter signed partnerships with suppliers to four major retail chains in Australia, opened an office in Munich that employs 11 people and services partnerships throughout continental Europe, and expanded into the US market.

Reflecting on their past achievements and future plans, Martin is incredibly grateful for the experiences and opportunities made possible through the Founders Program. “This accelerator program is really producing some of the best startups in Sydney right now, I think. The support that the university gives through the program is absolutely amazing.”





CURIN & CEED

Let the dreams take their first flight to realisation

The uniqueness of the Innovation and Entrepreneurship eco system at Chitkara University lies in its approach. We follow a two-winged approach to give the first flight to the dreams of innovators and entrepreneurs. The two wings (verticals) named CURIN (Chitkara University Research and Innovation Network) and CEED (Centre for Entrepreneurship Education and Development) work as independent entities, yet, in tandem and synchronisation. While CURIN takes care of the technical, professional, research and IP related aspects of a case at hand, CEED takes care of the business and commercial aspects of the same. The need-based approach gives much required flexibility to the innovators and entrepreneurs. A wide mentor pool comes in handy when such a need arises. Any body having a problem-solving idea lands in CURIN and moves on to make its PoC, prototype and can also file its IP. When the idea is matured enough, CEED gives the much re-

Key statistic

2500 students enrol every year for courses offered on Innovation & Entrepreneurship



Impact story

If it were not for a day-dreamer II yr CSE student, Kartik Vij, and his mentor's encouragement to believe in his dreams, 'BhuGoal' might not have born. Kartik came from a decent background and fairly good academic record. As a teenager, he always dreamt of doing something different and for every course that he learned, used to think, how it might be applied. During the orientation week for freshers, he had already learnt about CURIN and CEED. In II yr of his studies, when his mentor – an RF engineer - coming from a farmer's family, was talking about unpredictable rains and how it affects the farmers, Kartik thought of combining his recent acquired knowledge of Machine learning and the TV signals to predict weather conditions. The result was a USD 150 device BhuGoal, which can be easily installed at households and the data from TV signals can be crowd-sourced, machine learnt to predict weather with 99% accuracy for local farmers. Later, in his third and fourth year of UG studies, he went on to win many international and national innovation and entrepreneurship awards. He has registered start-up today with the name 'Too Decimal'. A day-dreamer got his first flight to realisation of his dreams with the help of CURIN and CEED. He is now dreaming of being a successful business tycoon and bringing out more innovative products for farmers.

In a way, above was repetition of a success story of another graduate in 2007, who, after successfully placed with a multinational came back to his alma-matter and expressed his desire to be an entrepreneur. At a time when no body, including his own family did not believe in him, the university let him establish the first university incubated start-up of the region - "TriDeal". He was lucky that his alma matter believed in his dreams and supported him when he needed that support the most. Later Tri-Deal got acquired by the Paytm and successfully exited in 2012.





AGILE WORKSHOP
AT MASHARES
CO-WORKSPACE

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“TO LEAD INNOVATION AND ENTREPRENEURSHIP IN UNIVERSITY IN THAILAND IS A REAL CHALLENGE. THE LESSONS LEARNED ARE PART OF OUR QUALITY MANAGEMENT AND WE DO HAVE DESIGNATED AGENDA TO REVISE AND MONITOR OUR PERFORMANCE AS AFTER-ACTION REVIEW (AAR).”



Triple E Awards

MEMBERS OF MAHIDOL
STARTUP CLUB



Future plans

iNT is more than ready to move on. With full support from the university, we put our heart in the 3-layer partner strategy. Firstly, “Internal Partnership” will emphasize on encouragement and trust among faculties and students of Mahidol University in which they will have a positive mindset on the significance of entrepreneurship. Secondly, “External Partnership” will strengthen the relationship between university and industries/investors to expand opportunities for our innovations and startups. Finally, “International Partnership” will create a network to promote entrepreneurship engagement in universities with worldwide recognition. iNT devotes itself to be the multi-level connector and our friends are invaluable. We realize that our slogan “Power of Mahidol Innovation” is not just for Mahidol University, but with all hands together it will be for the “Global Power of Entrepreneurship”.



INSTITUTE FOR TECHNOLOGY & INNOVATION MANAGEMENT

MAHIDOL UNIVERSITY

Power of Mahidol Innovation

The Institute for Technology and Innovation Management (iNT), Mahidol University has an important mission to become a leader in building the university's innovation ecosystem. Mahidol University is ranked No. 1 in Thailand by SCIMAGO Institutions Ranking for Innovation from Intellectual Property (IP). It is highlighted that iNT acts as the comprehensive platform for researchers,

students, and staff to facilitate every step of technology and innovation development such as collaborative research, IP protection, IP valuation, prototype development, entrepreneurial education, and startup promotion, per se called “Non-Stop University Innovation”.

With over 36 schools and colleges, including medicine, engineer-

ing, health sciences, information technology, and business, etc., we support 40,000 students (both undergraduates and graduates) and 4,000 faculties to make their creativity valuable. We encourage and facilitate open innovation to collaborate with industry and private sectors. Last year, 55 workshops and 384 university-industry collaborative projects were successfully carried

out through our institute. Many domestic and international partners have essentially strengthened our innovation activities. We as well support and share with other growing universities for the best we can do to promote entrepreneurship in society.

We believe in the power of people. The university should be a catalyst to match researchers and students with their missing pieces in the innovation journey. iNT has focused on connecting great people and always believes that teamwork is the key element for successful innovation. This is all in all the goal of our team to make the “Power of Mahidol Innovation”.



SHARK TANK ESCHOOL SUPPORT PROGRAM

THE UNIVERSITY OF ADELAIDE

Entrepreneurship for the next generation

Shark Tank eSchool (STeS) is a support program for high schools wanting to offer entrepreneurship education (EE) to their year 10 and 11 cohorts. In partnership with Sony and Mie Lab, the University of Adelaide has designed and packaged the curriculum and all the supporting resources and materials to conduct this course. We provide train-the-trainer sessions for high school

teachers, which equips them with all the knowledge required to teach the course themselves, but we also offer ongoing dedicated online and in-person support throughout each offering.

The STeS program commenced in January 2019, piloted in both public and private schools in South Australia. It is designed to immerse young people into

“the doing” of entrepreneurship and innovation and help them to develop an entrepreneurial mindset. The STeS program incorporates core concepts of creativity, innovation, critical thinking, teamwork, and entrepreneurial thinking, and is action-learning and project-based. Students form teams, and then generate a business idea. These ideas typically respond to exist-

“THEY KEY TO SUCCESS HAS BEEN TO ALIGN COURSE DESIGN, DELIVERY AND OUTCOMES WITH THE REQUIREMENTS OF OUR STATE’S GOVERNING EDUCATION BODY, SACE.”



ing problems and students are given the opportunity to develop a solution in the form of a product, service, or user experience.

We are harnessing the opportunity to grow a generation of innovators and entrepreneurs. An entrepreneurial mind and skill set has the potential to create societal change, especially when inculcated at a young age. We believe we are shaping the next generation of leaders and change-makers with the ability to impact not only their own lives and those around them, but the future of our country.





STARTUPS EXHIBITING THEIR PRODUCTS BEFORE PRIME MINISTER

SOCIETY FOR INNOVATION & ENTREPRENEURSHIP

IIT BOMBAY

You Dare We Support



SINE STARTUP SELECTED AS QUEENS YOUNG LEADER



Society for Innovation & Entrepreneurship (SINE), is an umbrella organization at IIT Bombay for fostering entrepreneurship and nurturing tech start-ups. SINE, is a technology business incubator providing 'Start to Scale' support for technology-based startups/innovators and facilitates the conversion of research activity into entrepreneurial ventures with a focus towards economic growth across sectors. Established in the year 2004, SINE has completed 15 successful years and has gained recognition as one of the pioneers of the startup incubation ecosystem in India. SINE has been recognized as:

Centre of Excellence (CoE) by Department of Science and Technology (DST),GOI.

Bio Incubator (BIONEST) & Biotechnology Ignition Grant (BIG) partner by Biotechnology Industry Research Assistance Council (BIRAC) & Department of Biotechnology (DBT)-GOI

Mentor for upcoming incubators - TIDE program by MeitY-GOI (Ministry of Electronics and Information Technology) SINE regularly implements new programs in collabora-

tion with Government, Industry/corporate and Academia. It has also expanded its scope of activities with cross border entrepreneurial programs.

As an incubator we bring differentiation in the following ways

We focus on building soft skill and providing business support to the startups

We have a unique revenue model that allows us to be self-sustainable

We are a broadspectrum technology incubator incubating technologies across multiple technology domains for a period of 3 years

Our internal screening and selection process has enabled us to have a success ratio of 75.6% whereas outside the incubator 9 out of 10 startups fail.

SINE's practices have been referred to /emulated in academic and R&D institutions across the country.



“INCUBATORS IN TODAY’S WORLD ARE THE FIRST RISK TAKERS IN THE START-UP ECO-SYSTEM ALONG WITH THE INNOVATOR/ENTREPRENEUR AT AN EARLY STAGE DURING THE START-UP JOURNEY. THEREFORE, THE SYNERGIES OF MINDSET BETWEEN THE INNOVATOR AND INCUBATOR ARE MISSION CRITICAL IN THE UN-CHARTERED PATH.”

Community Engagement Initiative of the Year

Finalists

SERVICE LEARNING PROGRAMME

UNIVERSITY OF COLOMBO

Future Leaders: Engaging, Empowering, Transforming



Recognizing the importance of quality education as the main infrastructure to achieve sustainable development goals (SDGs), Career Guidance Unit (CGU) of the Faculty of Science has developed a project under the Service Learning Programme to help remote and underprivileged schools to improve and uplift academic activities. The aim is straightforward: engaging undergraduates in transforming the society. "Service Learning" programme is novel working experience where science undergraduates are given the opportunity to exercise their scientific abilities to help needy communities in the country. The financial support is provided by corporate sector partners. The Programme is managed, supervised and assessed solely by the volunteer academic staff members of the Faculty. Thus, Service Learning Programme can be considered as a "Triple Helix" initiative that promotes the partnership between university, private sector and the community. The Service learn-

Impact story



ing programme to strengthen school education focuses mainly on IT, Science and mathematics. It also offers vocational training and other life skills for students to enhance their employability. Since 2012, the Service Learning programme has helped more than 16,000 school children islandwide. Future leaders of the country - the undergraduates and the school children - united for a change. Not only this programme supports schools, but also helps universities in community engagement: provide opportunities to use their skills and resources in science to serve the society, create out-of-class learning experience for undergraduates with significant enhancement of their soft skills including leadership, communication and activity planning. By this project we have initiated engagement of future leaders- undergraduates and school children.

This project has enlightened the life of many school children in the rural, underprivileged schools where facilities for IT, maths and science education are minimal. Those remote schools are poor in facilities as well as resources including properly trained teachers, regular classes, laboratories and hands on experience for the students. Some remote schools do not have teachers to help in maths and science.

In this context, reaching the unreachable communities, leaving no one behind, by the operation of service learning project has been a tremendous help to the schools. Our undergraduates not only help uplifting academic environment of the schools by teaching, training teachers and giving a hands on experience for use of computers, IT basics have been a strength to schools. Training on web based learning with the establishments of the IT labs help school children in many ways: it increases their knowledge about IT, finds useful resources as supplement to their normal academic syllabus and enhance computer literacy. Moreover, they can

Key statistic

16,000+ school children islandwide supported



continue the learning process even without regular guidance of teachers which makes the learning process sustainable. To add more, the transformation of the students into a "science and computer literate" community has a very strong psychological upliftment, as we have observed in many schools.



WOMEN IN SECURITY

AWARDS & CONFERENCE, SEPTEMBER 2019

awsn CSO
Australian Women in Security Network

Girls in Cyber Security Advancing Project

CHARLES STURT UNIVERSITY

Key statistic

137 high school girls participated in the project



Lessons learned

Women participation in cyber security education and career is normally undermined by the stereotype that cyber security is a man dominated career and women are less likely to progress in this career. However, women who are successful in cyber security related careers express their excitement when they are involved in solving complex problems, learning new technologies and contributing in innovative solutions. We also learned that women who receive sponsorship and mentoring are more likely to be successful in cyber world.

When we commenced the project we were not expecting the overwhelming response which we received from some of the schools and career advisors. Similarly, sponsorships and support from industry organisations and the Faculty was very encouraging and this idea was well received by the education department. Another reason for the project to be successful was involvement of STEM Industry School Partnership (SISP) which is an initiative of the NSW Department of Education. SISP representatives in some of the regional areas were very active to liaison between the schools and the project team.

We didn't expect that the project will be so popular that we were contacted by some schools outside NSW regions to offer the programs to their participants.

'Yindyamarra Winhanganha'

(an Indigenous (Wiradjuri) phrase that means the wisdom of respectfully knowing how to live well in a world worth living in)

The GiCSA project is all about engaging, supporting, and inspiring communities. The project contributes to strengthening relationships with high schools in regional New South Wales and Victoria. By increasing cyber security awareness in young girls, the project contributes to preparing a cyber-aware future generation as well as inspiring girls for cyber careers. Cyber threats and scams such as hacking, identity theft, phishing, and remote access are on increase. Our young generation spends a large portion of their time in online social networks. Making them aware and conscious about the cyber threats contributes largely to the economic, social, and environmental outcomes for our communities. Women representation in cyber security industry is very low. Currently





UNIC MENTOR
PROGRAMME
ACTIVITY

■ ■

“TAKE THE TIME NECESSARY TO STUDY SCIENTIFIC FINDINGS RELATING TO THE FIELD BEFORE INITIATING A PROJECT. EXAMINE THE VARIOUS WAYS THE PROJECT COULD BE IMPLEMENTED SO AS TO FIT THE PARTICULAR NEEDS OF THE LOCAL SOCIETY IT WILL SERVE. ”



Triple E Awards

126

UNIC MENTOR
PROGRAMME ACTIVITY



MENTOR YOUTH GUIDANCE PROGRAMME

UNIVERSITY OF NICOSIA

Realizing Youth Potential through Mentoring

Recognizing the impact of its activities on the wider community and stakeholders, the University of Nicosia (UNIC) designed and implemented a formal mentoring programme. MENTOR is a structured community engagement initiative serving both the University's social outreach pillar and broader societal needs. It is an effective tool by which short and long-term social benefits, linked to the Sustainable Development Goals, are achieved. It works by utilizing a mechanism developed by specific partners to identify children from vulnerable groups and connect them with University Students or Alum-

ni (Mentors). Children (ages 6 to 13) who grow up in families from low socioeconomic backgrounds, having reduced or no opportunities for schooling, as well as personal and social development, are paired with appropriate Mentors. These Mentors work voluntarily after being carefully selected and trained according to strict criteria and procedures. UNIC offers training, ongoing support and supervision to facilitate their role as friends, role models and mentors for these children. Mentors form important relationships with children as they deal with their school homework and engage in many other experiential and

interactive activities, including playing in the park, participating in sports activities, visiting museums, etc. These mentoring relationships protect and prevent the children (tomorrow's citizens) from delinquent behaviour, therefore enhancing their opportunities for personal and professional success. At the same time, Mentors experience some of the country's most important social problems. With that, they understand and cultivate the social responsibility that, as tomorrow's leaders, they will be called upon to incorporate into their professional positions.



Impact story

Eleni was a 23 year old postgraduate student of the School of Psychology, who applied to be a Mentor. Peter was an 8 year old child from a single parent family, attending third grade in primary school. Peter's father had abandoned the family when Peter was a baby. Peter's mother, Ronda, had to face life's hardships and work long hours as a supermarket employee. At that time, Peter's teacher wanted to help and reached out to Ronda to check if she was willing for Peter to take part in the MENTOR programme. Ronda accepted and, soon after, Eleni and Peter were paired together. When they started meeting, Eleni found a very shy but intelligent boy who was not performing well at school and easily gave up any effort to make friends. He told Eleni that he felt he was "the most useless kid in class". Eleni vividly recalls her response and efforts that day, encouraging Peter to focus on his abilities: "You are a brilliant child with many abilities and you can accomplish a great deal". The meetings proceeded and their relationship grew. Six months later, Peter shared with Eleni that: "Today, my teacher said that I'm the best student in class". Peter's school expressed gratitude for Peter's newfound support mechanism. This is only one of the many successful stories we can share. Mentoring guarantees and instills in children that there is someone who cares about them and connects with them, to help them grow and develop and, ultimately, realize their potential.



CENTER FOR ENERGY, ENVIRONMENT AND ECONOMY

OZYEGIN UNIVERSITY

Next generation near future

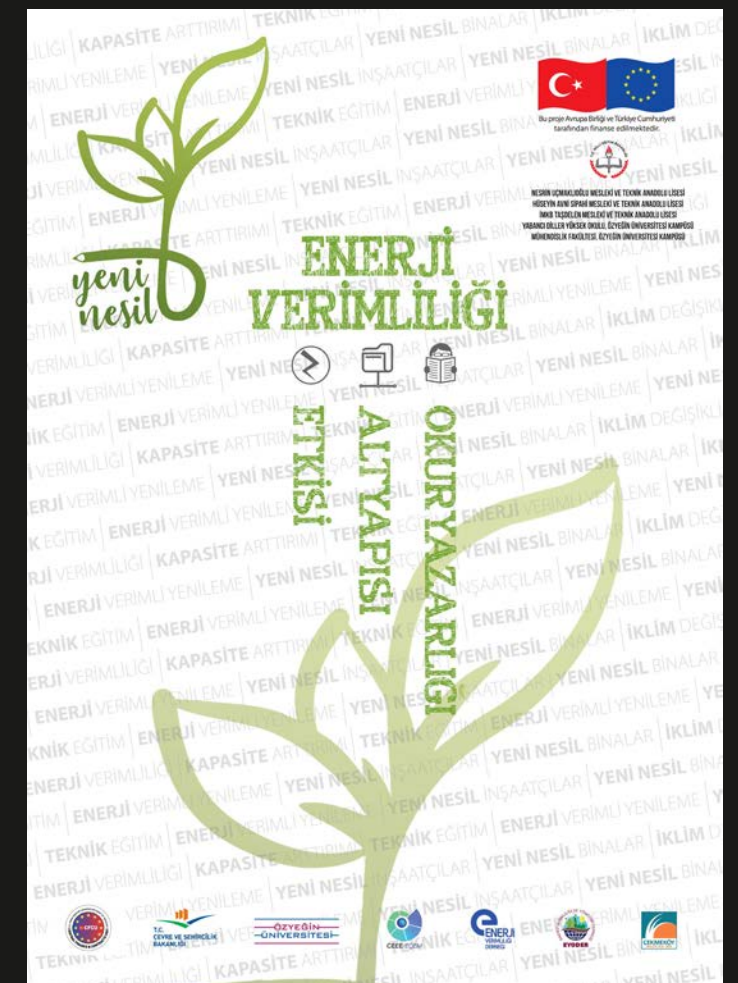
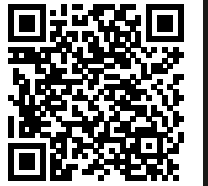
Climate change mitigation and adaptation actions require significant awareness and capacity development efforts. The National Energy Efficiency Strategy Document 2017-2023 of Turkey indicates that annual energy consumption in public

buildings and institutions is to be reduced by twenty percent (20%) by 2023. We believe that such a dramatic change can only be possible wide-spread involvement of architects, engineers, stake holders, and the technicians who actually work

on building energy efficient structures. Therefore, we have proposed YENİ NESİL (Next Generation) project to develop a number of different layers of teaching and training action items to have climate adaptation and mitigation plans

more effective and long-lasting in Turkey and in long run in Africa. The main objectives of the YENİ NESİL project have been to train the decision makers and teachers on the following areas: a. Energy Efficiency Literacy: The project has offered raising awareness on low energy buildings, targeting a large range of citizens from different age groups and different professional background. b. Energy Efficiency Infrastructure: The project has offered detailed monitoring and studying of energy performance of educational buildings. The data collected from these activities was compared with the data CEEE collected previously. All data was analyzed and a road map was created in the light of the outcomes, besides guidelines per beneficiary. c. Energy Efficiency Impact: The guidelines prepared for Municipality have had the intention of affecting the works on setting standards and parameters of zoning legislation and upgrading daily construction habits.

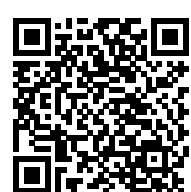
“CURRENTLY, WE ARE SCALING OUR EFFORTS FROM ONE MUNICIPALITY TO 10 MUNICIPALITIES, AND FROM ONE COUNTRY TO 4 COUNTRIES.”



FARMING TOGETHER PROGRAM

SOUTHERN CROSS UNIVERSITY

Building resilience in farms and communities through collaboration



“BY ENABLING PRIMARY PRODUCERS TO JOIN MINDS AND RESOURCES, FUELLED BY SHARED UNDERSTANDING AND ASPIRATIONS, THERE WERE POWERFUL OUTCOMES.”

The Farming Together Program (FTP) is an innovative knowledge mobilisation model which empowers farmers, fishers and foresters to build resilience and profitability through collaboration.

During its two-year pilot period, FTP reached 28,500 primary producers nationwide, unlocking the power of collaboration and empowering a generation of primary producers. The FTP flipped the traditional government-university-industry partnership approach placing the farmer as the primary partner realising unique results.

Historically, approaches of outreach initiatives across the Australian agricultural sector have focused on top-level collaboration geared to large-scale problem-solving mindsets with a trickle-down impact on farmers. These top-down approaches make it difficult to measure the impact of such initiatives as they are entangled with confounding variables.

Built around a personalised one-on-one approach, the FTP linked farmers to a range of different networks, types of training, expert advice and online resources at a critical time in their business development resulting in powerful collaborations. This type of on-demand, personalised access to quality academic and practical support is a standout feature of the FTP.

The FTP has demonstrated its ability to harness collaboration for systemic change. The relationships formed through the collaborative networks and the commercial benefits generated are being shown to continue beyond the pilot program. This sustained impact

is testament to the program's unique design focused on empowering primary producers.

This highly successful collaborative initiative has consequently led to the establishment of the Regenerative Agriculture Alliance - a movement addressing land degradation, bringing industry and researchers together to solve some of the country's most complex and urgent problems.



Student-driven Sustainability Project of the Year

Finalists

SOCIAL ENTERPRISE FOR ECONOMIC DEVELOPMENT

UNIVERSITI MALAYSIA KELANTAN

Rise to a heroic transformation of consciousness through socially responsible teaching & learning



Project sustainability is often expensive and painful thus rarely in place. Institutional concerted effort is required to ensure annual replicability of SEED-UMK. Top management support, capacities building ranging from staff competencies, resources to execution team with strong beliefs in orchestrating teaching, learning, research, community engagement, industry partnership, international networking into one service learning project, are essential. Having SEED Chapters successfully implemented in Indonesia, Malaysia, Vietnam, Thailand and the Philippines, SEED was hailed as an "excellent example for more responsibility in business education" (by United Nations' Head of PRME, Manuel Escudero), when presented at the first UN PRME Global Conference in 2008. The President of the Republic of Indonesia, who visited the first SEED village at Cisandori, Bandung in 2010, praised the villagers for their "creative problem solving", which is the outcome of SEED

Impact story



It started with a first year student, who came from a decent background and went on to community engagement trip to a nearby village in her very first year of graduation. On her maiden visit to the village, she found that most of the houses in the village did not have potable water. The water from the tube-wells was contaminated with pesticides and the villagers were not even aware of the water quality that they were drinking. Deeply moved, She approached her chemistry teacher, who also happened to be a water scientist and questioned "Madam, what is the use of your high quality research papers, if its outcome cannot provide real value to the most needy?" The duo then went on to form a water literacy club and also conceptualised and designed the low cost water filter made of earthen pot and processed risk husk as water purifying system. Soon the network of NGOs came to help by and 500 earthen pots were distributed nearby as part of CSR of the university. The rural population got benefitted. Today 'Swachh-Neer' is all set to become a social start up and is looking out for funds to scale up.



participants working with villagers in developing the enterprise plan. The SEED program has helped villagers with different needs, from poor villagers requiring livelihoods to displaced indigenous tribesmen requiring help to adapt to modern life (Temiards in Malaysia). The success of SEED everywhere testifies to its replicability, adaptability, scalability, and extension to new contexts and audiences (new communities and students of non-management disciplines) with consistently high quality learning and contribution to villagers' well-being. SEED prepares students to be effective future leaders, who are intercultural, empathizing, entrepreneurial, creative problem solvers, capable of empowering others to have similar problem-solving capabilities through mindset change, and thereby, potentially help transform communities and the world to meet the challenges arisen from globalization.

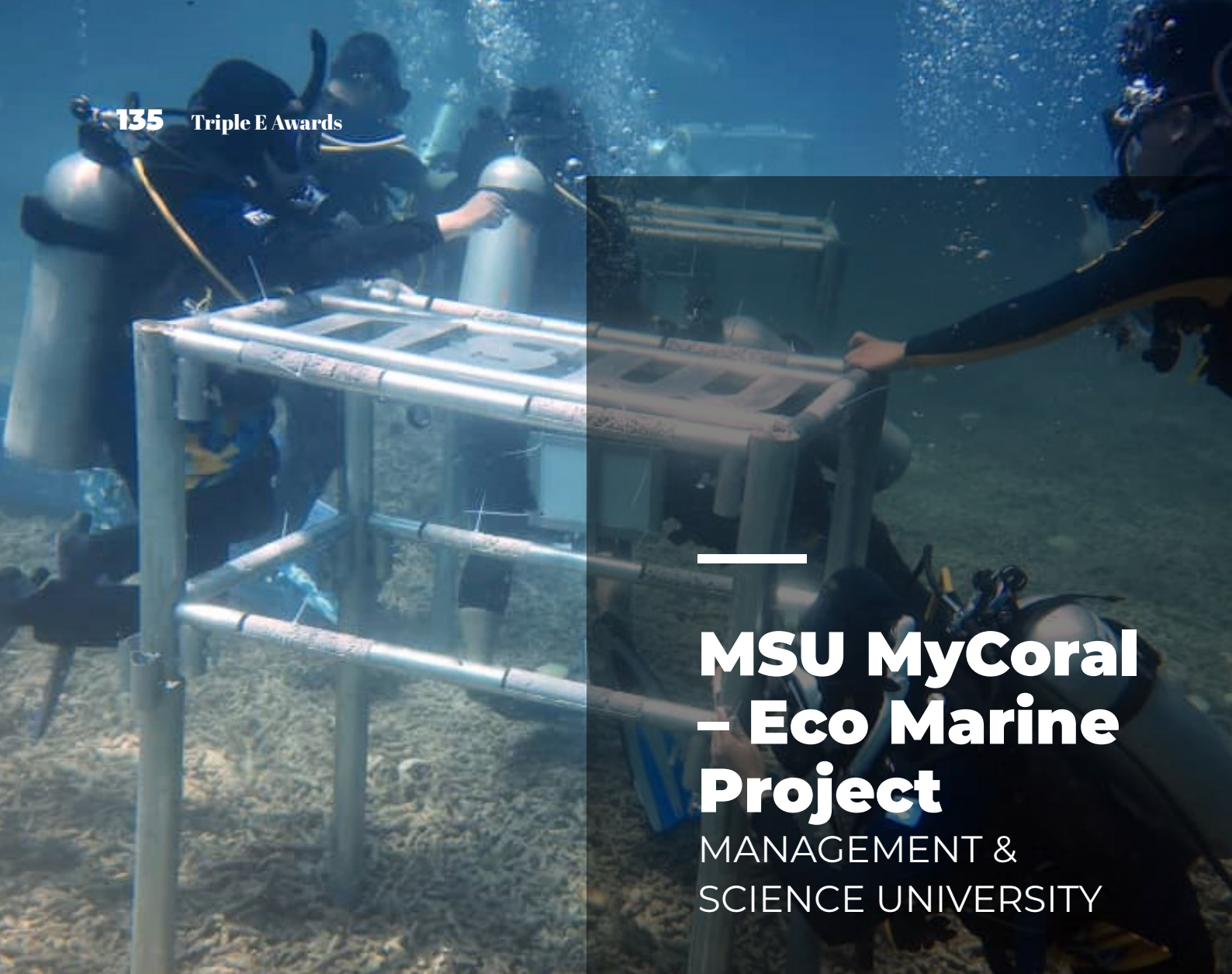


Key statistic

6 local villages involved



Yet another PhD student who was working on speech and multimodal processing area, once came across a troupe of kids from a blind school, who were part of an educational trip to the university. While shaking hands with one of the kids, he found that his finger tips were really rough. On questioning, the otherwise chirpy kid told that it is because of using the braille slate (which requires punching of the cards using sharp stylus) that his finger tips were rough. The PhD student, who is from an humble background went on to make an award winning product "Briltab Edukit" which circumvents the use of mechanical stylus with that of a magnetic one. It also has the vernacular speech support, which makes a blind person speak, write and hear back in vernacular language.



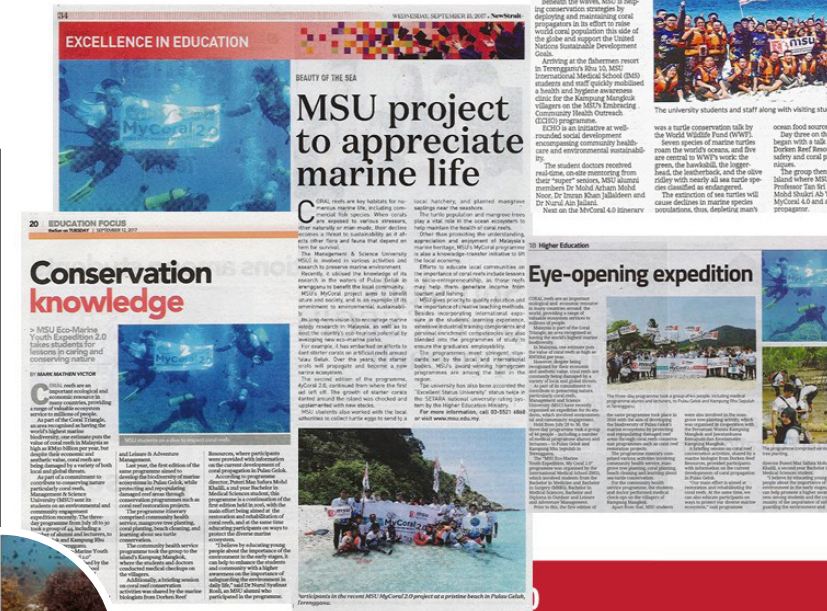
135 Triple E Awards

MSU MyCoral – Eco Marine Project

MANAGEMENT & SCIENCE UNIVERSITY

Key statistic

14 new fish species
populating the
new site



Impact story

The call for action to address the issue of deterioration in the living corals in Malaysia was triggered by the research conducted by Reef Check Malaysia which indicate that living coral has been declining over the last 4 years. Marine biodiversity is the rainforest of the sea. As the rainforest on the land is important for human survival, the rainforest of the sea is the lifeline of marine life. The biodiversity of marine life will have its ultimate impact on human survival. We live in a mutually dependent ecosystem. Thus, it is critical to the address the issues of life below water as espoused by the United Nation Sustainable Development Goals – Goal 17.

Corals are colonies of very small animals which may take hundreds of years to form their structures. They provide various benefits to the habitat of the sea and they act as a source of nutrient and sustainability for marine life. Thus, any deterioration in the coral colonies give significant impact to the sustainability of marine lives that are dependent them.

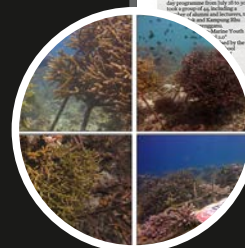
MyCoral Project focused on the reproduction and propagation of corals on artificial frame to provide a new ecosystem at Pulau Geluk, Terengganu. The location was chosen based on its strategic factor to assist in coral propagation where it has sufficient lighting, expedient temperature, suspended sediment and less human interference with nature. This project aimed to create a healthy ecosystem that can enrich the habitat and increase the fisheries resources while narrowing the gap between resources and demand.



Transforming Forest of the Sea, Enriching Marine Lives

This long-term project involved 230 MSU's students in collaboration with Department of Fisheries Malaysia and Dorken Reef Resources. It first started in 2016 as a result of the findings by Reef Check Malaysia which indicate that living coral has been declining over the last 4 years. This tri-partite effort ensures sustainability of the project in the long term. This project is conducted by MSU as part of the University's commitment to support the United Nation Sustainable Development Goals – Goal 17: Life Below Water.

Ten colonies of coral fragments were deployed at the initial stage. The lengths of their fragments were measured at every monitoring session. Since then, 10 frames were deployed in 2017, 10 frames in 2018 and 16 frames in 2019. The result showed positive progress on coral growth on the innovative coral frame.





“MANY SCIENTISTS HAVE GIVEN THEIR VALUABLE THOUGHTS FOR OUR PRODUCTS, WITHOUT WHICH WE WOULD NOT HAVE ACHIEVED WHAT WE ARE TODAY. MY UNIVERSITY HAS SET UP THE STAGE FOR OUR BUSINESS THROUGH THE PRE-INCUBATION CENTRE AT FACULTY OF LIFE SCIENCES.”



Triple E Awards

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JSS STUDENT PROJECT
TO START UP



FUNGO MUSHROOMS

JSS ACADEMY OF HIGHER
EDUCATION & RESEARCH

Mushrooms – The Food of the Past, Present & Future

Knowledge based and innovation oriented society provides required impetus for faster economic growth. Hence, it is very pertinent to usher in an enabling Eco-system for encouraging and sustaining the Innovations with an aim to make it an instrument of societal progress. Translating technologies and research into product development and revenue generating source is highly time consuming for startup ventures.

With an aim to contribute to this effort, we started to learn mushroom

cultivation at Faculty of Life Sciences, JSS Academy of Higher Education & Research, Mysuru during our 3rd year B.Sc., Biotechnology. As a beginning, a few of my classmates along with me were motivated to learn mushroom cultivation through a pre-incubation centre at Faculty of Life Sciences. Motivations and support of Dr. T.S. Gopenath, Associate Professor of Biotechnology was a main driving factor which gave us thought to come up with novel ideas into prototypes and further lead to successful commercial products of local relevance which can

have great impact on the population of this region, in particular.

Towards the end of our Bachelor degree we had already set up our own mushroom cultivation facility outside the campus with our own funding. With a partnership of 4 members we started to cultivate two types of mushrooms, viz., Oyster and Milky white. After initial struggles to find market to our products, now we have reached a stable position in the business and we hope to strengthen it through various by-products.

Lessons learned

From my young age I was thinking about innovation / entrepreneurship when I started to spend time with my uncle who was an agripreneur. Hailing from a middle class family, I was interested towards accessory works required to create a setup for agriculture, for instance, mushroom cultivation chamber. With this background I joined JSS Academy of Higher Education & Research, Mysuru in the year 2015 for my B.Sc., Biotechnology.

Two years of my degree program went fast before I could realize that I had not yet started the work which was stuck in my mind since a long time. The third year of my degree took the turn when I was motivated to take up activity based assignments. I was not comfortable with theory subjects as my thoughts around entrepreneur-

ship were disturbing me. Knowing my conditions, my mentor Dr. T.S. Gopenath, who was then teaching us, pulled me to start exactly what I wanted to. We wanted to try to produce a wine out of mushroom in the lab as a minor project, which went on to become a huge success among all the teachers and friends. This gave me a huge confidence to take up entrepreneurship activities, especially cultivating mushrooms and that too organically. I had planned to start in my small rental room. Soon thereafter, I got two partners, namely Rajkiran who was already struggling to meet his educational needs and was working part time and Ajay Jose who was a son of a farmer. The innovation took shape when the trio met. We managed to raise Rs. 5 lakhs through our families by now. We found another

support in Razi Rahman who could not invest financially but has worked enormously towards the development.

We went to set up a Hi-Tech mushroom chamber and named it Fungo Mushrooms which has now got an FS-SAI number. To save money, we had undertaken all accessory works like welding, fabricating, setting up electronic circuits etc. We are now supplying mushroom products throughout India.

After initial marketing hiccups, now we are a kind of stable entity. We have offers on Diwali or Dusshera. We are also looking to branch out to the value added products of mushrooms such as protein powder, pickle, vinegar, soup and wine in the near future.



MINIATURE MICROBIAL FUEL CELL BASED BIO-SENSOR

NATIONAL CHENG KUNG UNIVERSITY

Living the dreams

The project witnessed the successful integration of young bright minds from the two countries India and Taiwan to come up with a solution to detect hazardous hexavalent chromium metal in waste water. Hexavalent chromium is a toxic industrial pollutant and a classified carcinogen possess-

ing mutagenic and teratogenic properties. Its extensive use and disposal in water bodies have led to environmental concern. Hence, the detection of toxic Cr(VI) compounds is crucial. However, most of the methods commonly used are not for real time on-site monitoring but are offsite measure-

ment techniques. The novel miniature microbial biosensor fabricated with microbial fuel cell technology demonstrated potential for simultaneous production of electricity and detection of hexavalent chromium which would open up avenues for powering nano devices.

“MY FUTURE PLANS TO PROMOTE MORE LABS COOPERATION BETWEEN UNIVERSITIES LOCALLY AND INTERNATIONALLY.”



Lessons learned

I always believe that leaders should have 3C characteristics to lead a success organization. The first “C” is capability, leaders should not only have the intelligence for science or business strategy, but also the wisdom for application and investigation skills to magnify the potential of individuals which optimize the capability of their teams. Secondly, leaders should be proficient in communication which is the second “C”. Good communication brings closer relationship between each individual at the same widen the network across different disciplines. Lastly, leaders must always treasure the Chances (third “C”) that given to them. Not every smart person is always successful, however successful person always hold on to their chances.



PROFESSORS FROM IIT GUWAHATI, INDIA AND TAIWAN DISCUSSING WITH THE STUDENTS ON THE PROGRESS OF THE PROJECT

