

International Centre for Applied Sciences







International Centre for Applied Sciences





#1 in Australia

ANU is ranked #1 in Australia and #20 in the world.1

#1

Internationa outlook

Ranked #1 in Australia and #7 in the world for international outlook.²

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1 GS World University Rankings 2017-2018, 2 Times Higher Education International Outlook Indicator 2017.



Engineering & Computer Science at ANU

Be recognised with an in-demand qualification from Australia's top university.

At the ANU College of Engineering and Computer Science, you will study at a leading centre for research and education in Australia.

Join our community of students, teachers and researchers committed to finding sustainable solutions to the world's greatest challenges.

In return, receive education, research training and real-world experience that ensures you have a comprehensive understanding of a range of interconnected disciplines when you graduate.





Accredited

Six of our undergraduate programs are professionally accredited by Engineers Australia and/or the Australian Computer Society.



Five star maximum ratings for five assessment criteria including graduate starting salary.

AUSTRALIA'S CAPITAL, CANBERRA



Best city to visit

Lonely Planet has ranked Canberra the World's #3 best city to visit in 2018.



Global community

A city of just over 398,300 people with more than 25% of our residents born overseas, countless embassies and national institutes, Canberra has a strong sense of community; our global community.



employable graduates

Ranked #1 in Australia, and #21 in the world for Graduate Employability.1



Innovative approach

Develop your ideas and launch your own company through our program TechLauncher.



Modern degrees

Offered nowhere else in Australia, our engineering programs are modern and unique.



Six Nobel Laureates

The highest number of all Australian universities.

1 2017 Times Higher Education World University Rankings.

WHAT YOU NEED TO KNOW

Course Information

Visit the Programs and Courses website for program requirements, eligibility and the English language requirement at programsandcourses.anu.edu.au

Our Undergraduate Degrees

- > Bachelor of Engineering (Honours)*
- > Bachelor of Information Technology
- Bachelor of Software Engineering (Honours)
- Bachelor of Advanced Computing (Honours)*
- *We also have two Research & Development (R&D) degrees for high achievers.

How to Apply

As an international student, there are a number of ways you can apply for entry to ANU.

- > Directly to the university; anu.edu.au/study/apply
- > Through an official ANU education agent; anu.edu.au/study/contacts

Note: Applicants must select that they wish to be considered for advanced standing/ credit transfer on their application, visit: cecs.anu.edu.au/study/advanced-standing

Accommodation Guaranteed

ANU guarantees on campus accommodation to all international undergraduate students commencing in the first semester of their first year of study at ANU.

For more information on our accommodation guarantee and how to apply, visit:

anu.edu.au/study/accommodation

Important Dates

- > Entry to ANU applications close mid December for Semester 1, late May for Semester 2
- Guaranteed ANU Accommodation applications close mid December for Semester 1, early June for Semester 2
- > Orientation and enrolment early February for Semester 1, early July for Semester 2

Scholarships and Fees

Scholarships are awarded for a range of criteria including academic merit, financial need, and equity and accessibility, they can help to offset the cost of tuition, accommodation and travel expenses among other things.

To learn more, visit: anu.edu.au/students/scholarships-support

Tuition Fees

Indicative tuition fees for 2018 is AUD\$45,168 per year.

If the thought of working with individuals motivated to break new ground excites you, then ANU is the place to be. You can be sure you'll fit right in and find help reaching your goals, no matter what they might be.

,,,

Shreyas Nagarajappa

Bachelor of Advanced Computing (Honours)



CONTACT US

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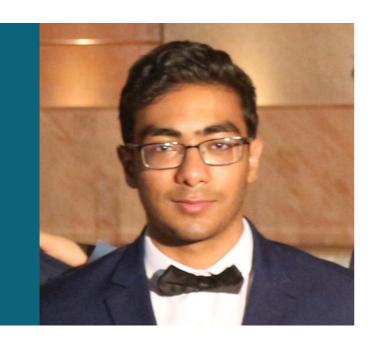
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Varun Agarwal
Editorial Board Secretary

Editors Note

Odyssey is a shout-out to all the great times all of us have had in ICAS together and the even better ones we look forward to in the future. Like the name suggests, this magazine is the story of an epic journey of the students of ICAS through the years 2016-18. Although we have adhered to tradition and followed the basic format of the previous editions, we have tried to make it as relatable as possible to every student who has been on this journey with us. Each page is a tribute, nay, a memento of the beautiful times we have had in ICAS together.

While going through all the submissions (written and graphic) for this magazine, I have to say that I was pleasantly surprised at the wealth of talent ICAS has at its disposal. To everyone in ICAS I say this: I am humbled to have been given the chance to edit your remarkable contributions and I hope I have done justice to all your pieces. I would like to thank Prof. Radhakrishna S Aithal, our Director who is the backbone and guiding light in the preparation of this Magazine. This task wouldn't have been possible without the unwavering support of the entire Editorial Board throughout the past year, especially Sriteja: a person I have been grateful to have worked with. Thanks also due to Mr Padiyar and his team at Ad Syndicate for bringing out the design exactly how we wanted it to be. My appreciation also goes to all the ICAS family, teaching and non teaching who have supported us with necessary input and encouragement.

I am sure that everyone associated with ICAS will find something or the other to relate to in our latest edition. I will know that our efforts were worth it if 10 or 20 years into the future, you find yourself going through this magazine and are flooded with memories of the amazing times you spent here, maybe even holding back a tear. So gear up for an odyssey of nostalgia through our very own 'Odyssey'. Here we go!



Sriteja AndugulaEditorial Board Secretary

Editors Note

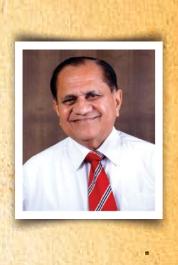
ODYSSEY is an epic about a heroic subject, that tells the story of the warrior Odysseus's long journey home, from the Trojan War to Ithaca. This journey was an insight into how there are often obstacles in life and with determination and the will to move on can help us achieve our goals.

At ICAS the journey was an experience. The culmination of students of vibrant caliber and talent. The various boards and the council as a whole worked together to find a solution to any issue that arose. Under the tutelage of our esteemed director Dr. R. S Aithal and the entire ICAS faculty, we as students got a chance to further hone our respective skills. Agreed that there were a few disputes and problems that occurred but united as an institution we were able to par any hurdle.

ODYSSEY is a train of experience that we all got onto together. Its all those memories and moments that we would cherish everytime we flip through the pages. It may not be an epic but it is the two years that has shaped the lives of students getting them prepped for the life we would have abroad.

The Ed board along with my editorial counterpart - Varun Aggarwal have been an integral part to define this magazine. Our sincere thanks to all the members of ICAS family.

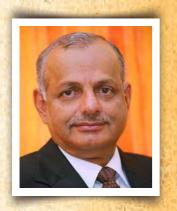
ICAS is full of surprises and it always will be. ODYSSEY represents it in the most elegant way possible.



Messages from Dignitaries

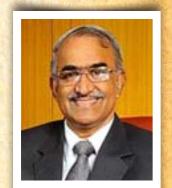
It is a golden opportunity given to the students of the International Center for Applied Sciences to equip themselves with the knowledge relating to the various sectors of the engineering discipline at a time when fast developments are taking place the world over in the practical usage of engineering techniques and skills. Students of ICAS are to excel themselves in their study more so when they are to compete with other professionals abroad. I have no doubt they are shaping themselves in the right way and I wish them a bright future.

Dr Ramdas M PaiPresident & Chancellor



It is the College Annual Magazine that is able to bring into prominence the activities of the students in their curricular and extra-curricular performances. It is the medium through which the students are able to show their talents and skills with their writings and caricature photographs. Above all the Magazine is able to highlight the harmonious way of life led by the students enabling them cultivate moral and human values. I am sure the Magazine of the International Center for Applied Sciences will prove to be a lifetime document to be cherished by the students on account of its rich contents. My best wishes to all the students for a successful academic career.

Dr H S BallalPro Chancellor



It is always a pleasure to leaf through a college magazine. Creativity and multitasking are essential to bring out a quality magazine on time.

The college magazine is an important media that provides a platform for publication of literacy and photographic talents, art and academic snippets.

I congratulate the editorial board of ICAS, Manipal on their achievement in this venture.

I am sure this magazine is going to be a useful memento to be preserved for ever for the sweet memories of the College. I wish the staff and students of the College all success and happiness.

Dr V Surendra ShettyPro Vice Chancellor



Messages from Dignitaries

International Centre for Applied Sciences (ICAS) is one of the most successful twinning programs of Manipal Academy of Higher Education (MAHE) which was established way back in 1994. Started with a few partner universities, today ICAS has over 140 partner and non-partner universities including some of the top ranking universities of the world. Odyssey is the annual magazine of ICAS which is a compendium of various activities conducted during the year. I appreciate the hard work of the editorial team of the magazine for depicting each and every event of the institute in a wonderful way. The content of the article truly reflects the sentiments of the students and faculty of ICAS.

I wish the entire team of ICAS a great success in their future endeavour.

Dr Narayana Sabhahit

Registrar

The 'College Magazine' is a fusion of various aspects of life at the institute! It gives an opportunity for all students to creatively express their ideas, views and sentiments. It captures the essence of the institute within its pages, which will be a literary treat. It is a platform for young and aspiring writers and artists to express their opinions, thoughts, beliefs, emotions and artistic talents.

The budding engineers from ICAS, with the able guidance from faculty, have come out with this annual college magazine "ODYSSEY 2017-18", the valuable treasure trunk overflowing with sparkling gems of creative and artistic expressions by the gifted! I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them.

My hearty congratulations to the entire Editorial Board, Faculty Coordinator and Student Council for carrying out this arduous task, efficiently. On this occasion, I seize the opportunity to bid a warm adieu to the outgoing batch of students on successful completion of their course of study at ICAS and wish them to get transferred to globally reputed universities. Be in touch and keep visiting your Alma-Mater! My best wishes to all the students for a glorious career ahead!

Prof. Dr. Radhakrishna S Aithal

Director, ICAS

Dear Student Friends, Happy to note that the students of ICAS bringing the year book "Odyssey" as a yearly event. This will definitely give you all an opportunity to show case your writing skills and other co-curricular talents. Since the year book contains the collection of yearlong activities along with impressions & details of outgoing batch of students which you can cherish later.

I take this opportunity to wish the students of ICAS all the very best to their future endeavours with a request to keep in touch with ICAS which has given them a strong foundation for their professional career.

Dr. Ganesha A

Professor & Associate Director



Messages from Student Council

The Student Council of ICAS has helped me regain hope in my abilities and confidently tackle any situation even at the last moment. It has taught me to carve my leadership qualities and enhance my skills in every sector. It was a drastic change from having been the Joint Editorial Secretary in the first year and having to lead the council as the President in the second year. Being a Lady President in population with a majority of guys in the batch was a challenging task in hand for me. I am pleased to have a team of people who are hardworking and enthusiastic who made even the hectic schedule effortless and easy going for me. Every single individual in the council, right from the Secretaries, the Board Members and the CR's, all have worked hard throughout the year, spending sleepless nights to make every event a success. A team so supportive and united has been the backbone for me as a President. The fun we had while organizing and participating in Reverb'17, Annual Sports day and the Annual day are the most memorable days which will be cherished forever. Above all what stands out in my memory and will remain as the best part of my life's diary is the bonding that I share with my best friends, which I consider as the precious earning in this short journey. They are best of the lot I could have found in this span, to keep me lively and stand by my side in all my ups and downs. I thank ICAS for setting the beginning of my career right. I wish all the seniors and juniors luck and hope they accomplish great heights.

Cindhuja S Ramasamy President



Messages from Student Council

Being a part of the Student Council of ICAS- 2018 has been one of the most exhilarating experiences of my life. Here I have learnt the most invaluable lessons of life which I shall carry with me to my grave.

The first responsibility of a leader is to define reality. The last is to say thank you. In between, the leader is a servant. — Max DePree

These words I believe not only serve as a definition for an ideal leader rather are also the mandate that any leader should follow. I have had the privilege of serving the council for two consecutive years. In my first year I was the Joint Cultural Secretary and under the able guidance of our seniors we learnt the Do's and Don'ts of effectively running a Council. In our Second year we tried our best to apply those principle's and innovate to make the ICAS Student Council a much more inclusive and active body and I must proudly acknowledge that we have done it quite effectively. This year our annual Cultural Fest Reverb was bigger and saw more participation than the previous years, we were more involved in various MAHE activities. Our Annual Day was a resounding success. We saw this year that the Council was much more inclusive and each of our Boards functioned as one unit in coordination with our Office and Director.

Each organization has its ups and downs and we at the Student Council had our fair share as well. But I must say each issue was dealt with meticulously and we reached a compromise agreeable to all. This article would be incomplete without the mention of my Joint General Secretary Tarun. Tarun not only assisted me in carrying out my duties rather I must say he went out of his way to make sure that Council work never stops. I would also like to acknowledge the Secretaries and Joint Secretaries of each of the Boards without whose cooperation it would be impossible for me or the President to run the Council effectively.

Finally I convey my best wishes to the Council to be elected next year and hope that they will work even better than we have and earn higher laurels for themselves and ICAS.

Vishal Y. Bajaj

General Secretary ICAS Student Council 2017-18







Orientation program 2017



The Orientation Program for the fresher (2017 admission batch) was held on 07 & 08 August 2017 at Chaitya Hall, Fortune Inn Valley View Hotel, Manipal. Arrangements were also made for the interaction of parents and students with the partner (foreign) University Officials.

The program was formally inaugurated jointly by Dr Adrian Briggs of Queen Mary University of London and Gopalakrishna Prabhu, Pro Vice Chancellor of Manipal Academy of Higher Education, Manipal on 7th August 2017. The following foreign universities participated in this inauguration and orientation event: Andrews University, USA; Australian National University, Australia; Deakin University, Australia; ESIGELEC, France; Lancaster University, UK; Leicester University, UK; Colorado State University, USA; Queen Mary University of London, UK; University of Queensland, Australia; RMIT University, Australia; Strathclyde University, UK; University of Nottingham, UK; university of New South Wales, Australia.

"STEM Education, an interdisciplinary and applied approach, integrating science, technology, engineering and mathematics into a cohesive learning paradigm, based on real-world applications, is the new trend in foreign universities. ICAS facilitates Indian students towards such holistic higher education to be

pursued in the universities abroad" said Dr Radhakrishna S Aithal, Director ICAS in his introductory address. The uniqueness of the program is that students study two years in ICAS and then move on to any of the premiere foreign universities of their choice to complete their graduation and get their engineering degrees from the foreign university. The program which started in 1994 has seen over 1600 students graduating. More than 100 leading, globally recognized overseas universities are accepting ICAS credits for continuation of full time Engineering studies.

Guest of Honor, Dr. Adrian Briggs, Reader & Education Lead, Division of Engineering Science, Queen Mary University of London while addressing students and parents emphasized the significance of Engineering in acquiring Problem solving skills, life-long learning skills and in combating major burning problems faced by the world today.

Chief Guest of the function, DrGopalakrishnaPrabhu, Pro Vice-chancellor (Technology & Management), Manipal University spoke about students being successful in the college atmosphere and their journey to international universities after they have completed two years in ICAS. He talked about Advantages of Manipal Education, multi-disciplinary and multi-cultural opportunities to prosper at Manipal. Dr Ganesha A, Associate Director ICAS gave the vote of thanks.

After the formal inauguration, there were series of short presentations by the various University officials on the topics like academic regulations, academic support measures, student welfare activities, student finance, medical care facilities, hostel rules & guide lines, library facilities, sports & games facilities, safety & security

measures and volunteer service organization. Two distinguished alumni of ICAS (Parth Hiren Mehta & Pooja Chandrashekar Shetty) shared their experiences with the fresh batch students and motivated them.









Independence Day 2017



Dr. H S Ballal - Pro-Chancellor - Unfurling the Tricolour

Manipal University celebrated the 71st Indian Independence Day on a grand scale at Manipal.edu premises. International Centre for Applied Sciences(ICAS) hosted the celebrations this year. Director of ICAS, Dr Radhakrishna S Aithal welcomed the gathering. Dr HS Ballal, Pro Chancellor, unfurled the tricolour and took the guard of honour. Dr PoornimaBaliga Pro Vice Chancellor(Medical Sciences) delivered the Independence Day message. All the members of top Leadership of MIT along with HOIs of the constituent institutes were present on the occasion. 23 contingents of MU took part in Independence Day parade. DrGanesha, Associate Director-ICAS proposed a vote of thanks.



SWACHHATA PAKHWADA

Elocution Competition

International Centre for Applied Sciences (ICAS) has always been exemplar in conducting events in such a way that the students participating as well as the audience not only enjoy but also get to learn a lot from it. With the same stance, the Editorial Board of ICAS conducted an Elocution Competition under the Swachhata Pakhwada for the students of ICAS on the 14th of September. The topic for the competition was "Health and Hygiene".

Students from various sections presented their views on the importance of Health and Hygiene and how it affects our lifestyle. The time limit given to the participants was 2+1 minutes. The students participated in substantial numbers and were very creative in terms of the content which included the benefits of health and a clean environment, the hazards of bad hygiene and the various ways in which we can lead a healthy life.

The judges for the event, Miss Sharal Correa and MrG.M Tungesh were impressed by the thoughts of the participants and also congratulated all of them for displaying courage to speak up on the stage. Dr Radhrakrishna S Aithal, Director of ICAS was also present to encourage the participants.



The Judges adjudged Harshal Nikam (First Year) as the winner, Jason Britto (First Year) as the First Runner Up and Soumya Sharma (Second Year) as the Second Runner Up. Through this event, the students got to know about the importance of Health and Hygiene. The event also developed a sense of confidence and motivation among all the participants which will help them in the future.

Green Drive

On 13th September 2017, the International Centre for Applied Sciences conducted a green drive as part of the "SwachhataPakhwada" week. It was on this day that the entire student council, including other students of ICAS, had eagerly come forth together to physically implement the essential purpose of a greener and safer world.



This was an initiative by our honorable director, Dr. Radhakrishna S. Aithal, because of whom a goal, which will have a massive beneficial impact in the long run, has finally been put into action.

The sapling plantation event was a huge success, with the presence of senior teachers and the student council. The event was commemorated by the planting of a sapling by the director and the associate director, followed by six others planted by members of the student council.



Through carrying out the green drive, the entire body of ICAS completed the first step towards a cleaner and environmentally-friendly place, with a sincere promise of many more steps to take.

If we all join hands and continue to strive progressively towards this goal, we can make an exceptionally beneficial difference on a large scale.



Reverb'17

The Annual Techno Cultural Fest of International Centre for Applied Science, Manipal, was held on 13th,14th and 15th of the October,2017. This was an event where an entire team of students, faculty and the staff members along with the head of the institution came together and contributed their best to this great endeavour.

As a part of the cultural fest, back to back inter-class competitions were conducted. With competitions in the field of dance, singing, photography, art, debating and fashion and some informal events with quirky twists, the 3 day event saw exuberant students participating in myriad of events. Participants got the opportunity to display their respective skills and represent their





respective classes in the competitions. A decent number of students came to attend and support their fellow batchmates and be a part of the various events.

The cultural fest started with the Gaming, open Art and photography events where students showcased their artistic side. The second day of the fest started with fun games which was followed by a number of fun events like Antakshri, Street Play, Rope Grope, Mad Ads and Ship wreck which saw active participation of students both as participants and audience. The third and the last day of the Annual-Techno-Cultural fest was full of events as Debate, JAM, Treasure Hunt and Quiz with the concluding part inculcating events such as Dancing and Singing in which the participants enthralled the audience with their captivating performances.

The whole fest was organised by the Cultural Board under the supervision of Faculty members and the Head of the institution, supported by the Editorial and the Sports Boards of the Institution.



VOLUNTARY SERVICE ORGANIZATION

Daan Utsav



In accordance with the famous quote, "We make a living with what we get but we make a life with what we give", ICAS organised a donation drive 'DaanUtsav' under the auspices of VSO, this year also. The event was held on October 7th 2017, at 3:00 PM in Manipal. The first year and the second year students of ICAS took part in this drive, not just by donating but also collecting from other the clothes, books, bags and other useful items that they wanted to donate to the needy and find happiness in giving. The President Cindhuja S Ramasamy and the Sports Board Secretaries Abhishek Patil and Abhimanyu Agarwal oversaw the preparations. The presence of our staff and teacher coordinators Mrs. Arti Pawar, Mr. Girish and Mrs. Manjula helped us make the even a successful one. All the donations were gathered and given to the housekeeping staffs in this DaanUtsav as they are the ones who work for us throughout. On the whole this donation drive on DaanUtsav which was managed by the sports board of the student council was neatly managed and successfully completed.

Visits of Foreign University Representatives



Prof. Patrick Fitzpatrick
UCC Ireland
7 September 2017

Ms. Kayla Maule MSOE, USA 14 September 2017





Mr. David Carlisle Montana University, USA 22 September 2017

Mr. I M Javris Leicester University, UK 18,19 September 2017





Prof. BaskaranDeakin University, Australia
18 September 2017

Dr. Thilla Sivakumaran
Ms. Shannon Wess
Mr. Kiran More
Arkansas State University, USA
12 September 2017





Dr. Tracy Buss Mr. Alex Foundos Wisconsin- Milwaukee, USA 18 Sept 2017

Dr. Phill Benachour Dr. Michele Luxon Lancaster University, UK 26 March 2018.





Prof. Baskaran Mr. Dhruv Mohan Mr. Piyush Chopra Deakin University, Australia 13th March 2018.

Ms. Preetika Sachar Education USA Bangalore 7 March 2018.





Prof. Sanowar Khan
Prof. P. Kyriacou
Ms. Rebecca Jayne Jenkinson
City University London
5 & 6 March 2018.

Mr. Alexander Galloway
Robert Graham
Strathclyde University, UK
27 & 28 February 2018





Ms. Sweny Rokani University of Queensland, Australia 22 &23 February 2018

Mr. Jarvis Leicester University, UK 19 & 20 February 2018





Dr. Nervo Xavier VerdezotoLeicester University, UK
15 & 16 February 2018

Mr. Kaushik Ghosh Australian National University, Australia 5 February 2018





Prof. Robert BenjaminAndrews University, USA
1 & 2 February 2018

Prof. Patrick Fitzpatrick
University College Cork, Ireland
23 & 24 January 2018





Prof. Guru Subramanyam University of Dayton, USA 11 January 2018

ICAS Sports Day





On 17th of February, the much-awaited ICAS' Annual Sports Day was held. It was all up to the Student Council to run the event smoothly as a lot of preparations and hardwork went through planning it.

The whole of ICAS family had gathered as early as 7:30 AM at the MIT Cricket ground to compete for the various activities. DrSatishMallya escorted the Chief Guest for the event, DrGiridharKini, Director of Admissions, MAHE. The students of ICAS started the day with March Past. AbhishekPatil, Sports Secretary and HarshaPhani, Joint Sports Secretary lighted the torch, which was followed by the Oath taking ceremony. The Chief Guest then spoke about the importance of Physical and Mental fitness amongst other things and declared the Sports Meet open.

The day's schedule was tightly packed with various events taking place one after the other. The

participants displayed their physical skills with great zest and enthusiasm while displaying their sportsman's spirit throughout the events. The Masters of the ceremony, Vishal Bajaj and Jason Britto conducted the program actively and made sure the run of the events were smooth.

Even the faculty came forward and participated in events such as Shotput and Musical Chair. The various events of the day concluded at 5:30 PM. This was followed by the Prize Distribution Ceremony, in the presence of our Chief Guest, DrGiridharKini. SaurabhMolio, from the juniors was given the Best Male Athlete Award and CindujaRamasamy, from the seniors was adjudged the Best Female Athlete (female). The event finally ended with the Sports Meet 2018 being a success through the sincere efforts of the ICAS Student Council.



























ICAS Annual Day



The International Centre of Applied Sciences had its 24th Annual Day on the 24th of February, 2018. Organised by the collective effort of the Student Council and our beloved teachers, the Annual Day celebration comprised of variety of performances and felicitation ceremony of its diligent students and the members of the student council. The first event was the musical performance of YashWadhwa and Parmeet Singh on the melodious symphonies of Ed Sheeran; thus garnering all of the audience with their impeccable talent. Then following the act was a duo performance by ManchitNaithal (2nd year) and NityaBhuraria, keeping the audience chained to their rhythm.

A video was made by Emmanuel stan depicting the senior students' journey with many ups and downs but emerging victorious; on the path towards their success with their heads held high and braced up for their college experience abroad. After which took place an intriguing and humorous skit directed by AbhiParsai. A heartwarming short film, directed by Ritwik Sinha of first year was presented right after, and delivered an

important message warning people of the negative impact of smoking in society.

The chief guest for the event, Dr. Raghu A.R., Director of International Collaborations, MAHE, had graced us with his honourable presence. Cinduja S Ramasamy, president of the ICAS student council, recited a formal prayer leading to the lighting of the holy lamps. After a short welcome by the master of ceremony, Jason Britto, the academic year's annual report was presented, followed by a much-anticipated prize distribution for all the student council heads, appreciating and thanking them for their diligent efforts and perseverance.

Dr. Raghu A.R. then kindly addressed the gathering and quoted wise words to all the students. A sincere vote of thanks was given to the honourable chief guest. As a token of gratitude to the non-teaching staff, they were given awards for their immeasurable contribution to ICAS.

A singing performance led by Annie John as well as another singing performance presented by the staff were both much anticipated by the audience which was very much appreciated and applauded by the audience.

Everyone cheered for NityaBhuraria of first year and Aashray Lath of first year as they both did a dance-off.

The entire ICAS family enjoyed the dinner which was accompanied by a performance from the band. The event was a success, due to the tireless work done by the committees. The cultural board perpetually made

sure that the show was progressing in perfect coordination. The Masters of Ceremonies, Jason Britto and HarshalNikam of first year made their best efforts to make sure that there were not a single moment of boredom throughout the show.

In conclusion, the entire event was a success: a day to be remembered by the entire ICAS family; the current as well as the prospective students as a beautiful memory to be cherished in our hearts forever.



















Yakshagana







Organised by the Cultural Coordination Committee of the Manipal Academy of Higher Education and hosted by the International Centre of applied sciences was the staging of a Yakshaganaprasanga called "Narakasura Moksha" on the 1st of March at the Amphitheatre in MadhavVihar , Manipal. Narakasura Moksha as the name suggests describes the tale of a battle between Narakasura, a son of divinity who possesses demonic powers. The battle ended in Krishna's defeat after which he teamed up with Satyabhama and the duo finally beat Narakasura. Narakasura then recognizes the duo as the incarnation of his parents Vishnu and Mother Earth and undergoes a massive change of heart and thought. He then prays for their blessings and Moksha. He also wishes to be remembered by the people of the Earth. His wish is granted and thus NarakaChaturdashi is celebrated on the second day of Diwali by taking an oil bath which symbolizes the victory of light over the darkness as one gives up the evil in them.

The evening commenced with the arrival of our eminent chief guests which included the Associate Director of the International Centre of Applied Sciences. DrGaneshaArehole and the Director of the Manipal Institute of Technology, Dr. D Srikanth Rao. Then took place the lighting of the lamps to symbolize success and prosperity followed by the masters of ceremony; the students of ICAS from the student council shared the story of Narakasura. Then came the moment the audience was waiting for: the performance of Narakasura Moksha with Sri Kasaragodu Subraya Holla as the lead role. This Yakshagana consists of two types of artists: One is "Himmela" the other is "mummela". Himmela is nothing but background artists and the mummela consists of artists who dance and deliver the dialogues of the prasanga. Himmela artists are Bhagavatharu who plays tala while singing, chende player, Maddale player, Harmonium or shruthi player. After the grand performance, the evening ended with dinner being served to the guests.



City, University of London offers a range of exceptional undergraduate engineering and computer science courses, designed to help students secure a successful career.

City's prime location in Clerkenwell is on the doorstep of Tech City, Europe's largest cluster of digital and technology startups. Additionally, the University's close proximity to some of the UK's leading engineering, IT and financial institutions ensures that City students are perfectly positioned to make the most of professional placement, internship and work experience opportunities.

City students learn from experts who are prominent in their field and passionate about their subject. City has outstanding international profile and links, combined with world-leading research and a silver award in the Teaching Excellence Framework.

Placements and Professional Pathway scheme

Supported by our specialist team, Computer Science and Engineering students have the opportunity to undertake a summer internship or one-year placement relevant to their degree. Depending on the stage of entry Computer Science students can join our unique Professional Pathway placement scheme; combining two years of paid employment whilst studying for their degree.

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ACCOMPLISH MORE BY DOING LESS

Between the years 1912 to 1915, Albert Einstein was a focused man. His previous work on the special theory of relativity and the quantization of light, among other topics, had started to gain attention. Einstein left the Swiss patent office, and ended up, in 1912, at Switzerland's ETH Institute. Once there, he met mathematician Marcel Grossman and became convinced that if he applied the new Non-Euclidean math to his own work on relativity, he could generalize the theoryto account for gravity. This development was nothing short of overturning the single most famous law in the history of science. In 1915 he published his full theory. It stands as one of the greatest scientific accomplishments — if not the single greatest — of the 20th century. Einstein's push for general relativity, highlights an important reality about accomplishment. We are most productive when we focus on a very small number of projects on which we can devote our time generously. Achievements worth achieving require hard work. There is no shortcut here. Be it starting up a new college club or starting a new business, eventually, effort, sustained over a long amount of time, is required. In a perfect world, we could all be Einstein. We could all have one, or at most two projects in the three major spheres of our life: professional, extracurricular, and personal. And we could be allowed to focus on this set as we push the projects towards impressive conclusions.

But this doesn't happen.

Our problem is that we never know which project might turn out to be our theory of relativity and which ones are not going to lead anywhere. Because of this, most ambitious people I know, follow a different strategy. We sow manyseeds. We commit to a lot of minor projects. We do not know which seed would eventually germinate and grow, so, by planting many ideas, we expose ourselves to randomness.



These numerous seeds, however, have a tendency to transform into weeds. While some of them clearly grow into pursuits worth continuing, and others die off quickly, many, instead, exist in a shadowy in-between state where they demand our time but offer little promise of reward.

We can no longer focus on a small number of important projects, but find ourselves, instead, rushing betweenincreasingly overwhelming states, full of a variety of obligations. Imagine if Einstein maintained a blog, wrote a book, joined a bunch of clubs at ETH, and tried to master rowing at the same time he was working on General Relativity? Then probably, we'd still be living in the age of Newton.

You can do two things at once, but you can't focus effectively on two things at once. When we think we're multitasking we're actually multi-switching. People think focus means saying yes to the thing you've got to focus on. But that's not what it means at all. It means saying no to the hundred other good ideas that there are.

The overwhelming majority of people who have reached success will tell you that sticking to one thing and doing it until you reach your goal is the only surefire way to achieve success. Multi-tasking gives the illusion of competence and productivity but it is actually a detriment to your own productivity.

As it is famously said, be like a postage stamp—stick to one thing until you get there.

Shalvi Shubham Second Year Computer Science

Creative versus Critical thinking

As said by Sir Francis Bacon, "knowledge is power" but it must be kept in mind that knowledge without its application does not hold any relevance. At the end of the day, knowledge is meant to be shared and passed down to generations for it to hold true value.

The former can be done as a form of habit or must be enhanced and modified as per time. This custom must be followed for the budding of creative thinking. The beauty of creativity lies in the meaning of the word itself, that is, creativity is a phenomenon when something new or valuable is formed - be it a physical object or an intangible entity - whereas creative thinking is a soft skill depicting the same thing.

Creative thinking, as said by Giovanni Corazza, is to think out of the box. Coming up with something which is new in its entirety is a difficult task to do not only due to the extent of what is asked but also due to the boundary that exists in rigid our minds. Now there is a very thin line between creative and critical thinking. Since creative thinking encompasses not only the concept of virtuality but also something substantial, this is where it intersects with critical thinking. So to be precise it can be said that creative thinking is a subset of critical thinking.

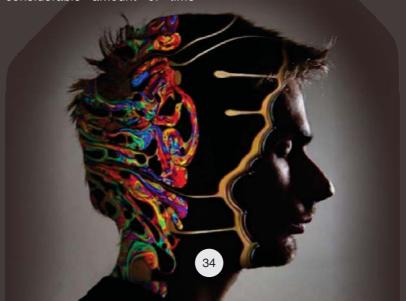
Critical thinking circumscribes six vital skills: problem solving, analysis, creative thinking, interpretation, evaluation, and reasoning. Critical thinking is taking a step back to analyze the situation and come up with a judgement. The conclusion is made of the basis on checked facts and hence it is feasible in reality.

Consider high school in countries like the United States where students choose their subjects keeping in mind the relation of those subjects to their stream and some as per their interest. This academic measure makes the students invest a considerable amount of time

intothinking what career path to follow much before than the students studying in countries like India, where they have to choose a set of subjects rather than separately. In this way, the subjects lose their individual importance and it is quite possible that a student wants to do software programming but not hardware pre specialties. This can compromise on the student's learning of the subject and increase their interest on the other hand. Thus, the academic institution has to create a curriculum which would encourage students to be who they want to be while also creating a path of stability which caters to their interests.

Thus creative thinking should have no boundaries like analogy of the tangibility of the object or the idea because the human mind is a powerful entity and yet to be fully utilized and in order to explore these parts of the mind, we must think 'out of the box'. Additionally, no one knows the future and so someone's idea which is just a theory might turn into reality sometime after. In conclusion, one should just put their theories out in the open because who knows, some great mind in search of a purpose is ready to work on it and by this collective effort, something comes to existence of change the dynamics. To conclude, the invention of the motion picture camera, also known as the video camera by Thomas Edison in the early 1890s, was based on the photographic principles discovered by still photograph pioneers Joseph NicephoneNiepce and Louis Daguerre from the early 1800s. It was their collective effort because of which we are able to record our precious memories and keep them with us to cherish and relive those moments and pass them down when the right time comes.

> **Disha Goel** First Year Computer Science



Gandhi at Tiger's Circle

Mohandas Karamchand Gandhi went to study law at the University of London at the age of 18 in order to become a Barrister and follow in the footsteps of his father and become a Diwan. What this has anything to do with ICAS is that most second years today are in a similar position to what the youngest son of Kaba Gandhi was in back then. Most of us transfer out next year, to universities we have already started shortlisting and places we feel we will all be comfortable (read: enjoy) in. We too, like young Gandhi back in 1888, are looking forward to a life full of challenges, adventure and fun, not really bothered about the matters that grip our nation or the world in general.

And why would we be? As almost broke 18 year olds, we all think that we can't really do anything much to actually make a difference about issues such as world peace& global poverty except focus on our careers and think about this at a "later time" when we have better resources. But answer this: what resources did Mohandas Gandhi have when he was kicked out of a train because he wasn't white, despite having a first class ticket? What motivation did the 4th child of the widowed 4th wife of Karamchand Gandhi have, to do anything with his life? The answer is none for both the questions. What he did have, however, was an unwavering fire in his heart to achieve equality: to fight injustice and to be seen in the same light as an African or a Britisher irrespective of the country he was in.

Most of us when asked the question "what do you want to do in life?" reply with an answer as ambiguous as it gets: a good job or business. Some even go as far as saying that they want to be happy and settled. That's like saying "I would love to have 3 meals a day, probably with some decent snacks in the middle". But have we really ever asked ourselves this question? Do we actually know what we want to do with our lives after completing our education and what exactly are we doing to achieve that?

But it's not that bad if we don't. Mohandas Gandhi didn't have an iota of an idea about what he wanted to do with his life when he was leaving for England apart from the fact that maybe one day he would like to resume his paternal hierarchy of work: joining administrative politics. But his experience in England and then in South Africa made him return to India a very different person from the timid, frightened and under confident boy who had left to become a Barrister in England 20 years back. This was a Gandhi who had the vision of an independent India even back in 1914 and the determination to make that happen. And he did make it happen, inspiring millions along the way, teaching the "rough hooligans of society" a way to make them be heard without raising a fist and getting a nation independence.

His words "Glory lies in the attempt to reach one's goal and not in reaching it" hold an even greater meaning today, 70 years after independence, because Mohandas Gandhi taught us that no matter the magnitude of the struggle or the strength of the opposition, if you have the willingness to fight, you can overcome any obstacle on whichever course you choose to follow. And that, fellow students, is why we must honour this great personality: he is the perfect example of knowledge gained abroad applied to benefit his own nation and except a few stray thunderbolts here and there, almost all of us want to return to India so why not he be our role model?

Varun Agarwal Second Year Mechanical Engineering





I, am a dragon!
And I was, once, so proud.
My glistening armour and fiery breath,
Always, pulled the crowd.
Now, I've come to a different land,
And these natives,
They don't believe.
They seemed to have a doubt.
They gather around me,
But only see my worn out claws
And broken teeth in my mouth.

"Back in the day," I begin. My story unravel.

These natives, who surround me,

I tell them about my travel.

I tell them, "I would would once fly so high,
that even gods would shy away.

And, Oh! With my fiery breath,
I reduced the cities to gravel."
I tell them, "I was once so big,
Larger than the largest mammal.
And how people worshipped me!
Just to quench my thirst,
They'd sacrifice their largest canal.

"I am a dragon I say.
Their eyes begin to shine.
"Gold as far as the eye could see,
All of it was MINE!"
My story, suddenly interrupted.
A child rose, "You are a old, now, Mr. Dragon,
That was a different time."
I was forced to look at the present,
That too by a child of nine.

"So, now I end my tale ", I shout.

I gather myself. I accept.

"I, am a dragon!

And I was , once, so proud.

My glistening armour and fiery breath,

Always, pulled the crowd."

I embrace my present.

"I am still a dragon!

But a dragon,

Who's fire has run out."

Abhinav Pandey Second Year Computer Science



Everyone is well aware of the legend of Troy, of how a simple answer to a question paved the way to one of the most revisited and famous stories ever told. A story of destruction, war, and loss nonetheless. Numerous accounts through history follow the same path- a single thought, the spark of an idea at the back of someone's head, a minor accident and the world learns new lessons.

It is often a common notion that a person of greatness must have exceptional intellect, be perfect in their way of thinking or execution, and that they toil under the burning sun to achieve what they want. Of course, it is true-but not complete. The only thing that can render a man void of everything is the idea that things are meant to be perfect. Mistakes run the world. Imperfections give new ideas. Fleming unknowingly cultured what became one of the most widely used antibiotics because of dirty petri dishes. The concept of Big Bang,

Identifying your Achilles' Heel

which inspired more theories and stories of fiction was an accident while working on radio signaling antenna. Most of us must have come across the term of sickle cell anemia, but how many of us know that it is related to a simple concept taught in middle school-hydrophobicity.

It is shocking that we do not realize how many things can go wrong in a matter of seconds. Perhaps it is the fact that everyone abides by the norms of the common phrase, "Ignorance is bliss," that we overlook the ambiguous concept of knowledge and wisdom. If light symbolizes knowledge, then wisdom is the wick burning to create the flames. It is, however, important that we know how to control the flames lapping up the world, for they have the power to destroy the path as well as they show it. A stumble is harmless as long as you don't hit the pavement- what matters is how you hold yourself, how you regain your balance.

Mistakes happen, but it is up to each individual to treat their mistakes as mistakes or as opportunities. As Plato so aptly put it, "Science is nothing but perception," Yes, hard work is the key to success. However, digging blindly is a waste of time and energy. Even when heading out to get a few things we rely on maps or GPS, then how is it logical that we do not understand where we're going if we tread on the line dividing ourselves and our ambitions. A person's ability to identify their Achilles' heel- the reason for their failure is of prime importance.

The battle of Troy caused immense chaos, but it also gave birth to one of the greatest empires of all time. What is important is how one perceives these small details, unknown mistakes and uses them to create a world of a difference. It can be the reason for downfall, or it can be reason for the onset of something new. Look around, your Achilles' heel is waiting to be discovered.

Nidhi Suthar First Year Biological Engineering



Limiting Alternatives-Making Our Choices Easier

There are amany things we need to take care of in our life and these things get complicated as we grow older. Our responsibilities are increasing and we have to take care of them without fail. Making critical choices has become a routine for many of us. Don't you sometimes wonder how things would be better if we were still kids? We all do because as kids we didn't have the burden of responsibility nor the hassle of making a choice.

We find ourselves in many such situations, where we might have to take drastic decisions. We could get very confused thinking about the thing that is to be given more importance. One important factor that makes things more and more confusing is the number of choices we have. We get confused about the decisions to take and the choices to make. Suppose we are in the process of applying to a university; it is natural to get paranoid and worrisome while doing this seemingly easy process. However, the matter will become a lot easier if we break down this process into simpler steps: list down the universities situated in the region of our liking and then eliminate the ones which we don't think we have a fair chance of admittance due to various personal reasons. Try to reduce the choices as much as possible, and at the end, there will be fewer options left and eventually you will be in a better position to take the decision.

"There are no limitations to the mind except those that we acknowledge. The finite mind tries to limit the infinite. Every choice is limited and every limit is a beginning as well as an ending."

One more thing to remember is never take a hasty decision. If the problem is grave then it deserves some time to think upon it. Give the problem some time, things get simpler. A different perspective is sometimes all it takes to solve a problem.

Reducing the number of alternatives makes things easier and simpler. Lesser the number of alternatives, more time do we get to think upon each alternative and eventually spending enough time on each of those alternative will help us to take logically correct decisions, and we will keep away from taking a hasty decision. This may sound a simple and paltry thing but in the corporate and academic fields, these things do matter. The more alternatives we have, the more we will think upon each alternative and more complex will be the selection process. So let us learn to limit our alternatives and ponder upon the remaining few – the ones that are worth thinking about.

Abhi Parsai First Year Computer Science

Social Media -

Its Darker Side

What was once all but a trendy way to communicate instantly has now become one of the most common and primary necessities in our world. Within the last ten years, we have evolved to depend majorly on social media, so much that it's practically impossible to remember a world without it. Social media has given us endlessadvantages, which the previous generations never had. The homesickness we hostellers are very familiar with can be compensated for, to a significant extent, with video calls via WhatsApp, Skype, etc., to speak to our loved ones sitting far away. However, along with the massive load of benefits that social media had brought with it, it also carried an equally huge load of downsides, which many were not aware of at the time.

It is quite astounding: you can immerse yourself in a completely different world of data and communication compact into something that fits in your pocket, away from the world you live and breathe in. Now that social media is much more accessible due to technological developments, it is time to bring into light the negative side of its usage. As people are spending a lot of their precious time on social media sites and on the internet overall, they show progressively less acknowledgment for themselves and the natural world around them.

One factor that plays a massive role in our day-to-day life is mental health, and social media can have quite a negative impact on it. Through social media, we spend hours straight scrolling through our Instagram or Facebook feed and spend less time in socially interacting with people offline. This can lead to social isolation, since some would judge their classmate from his or her latest online status (which keeps changing) first, than actually initiate a conversation to let them introduce themselves. (On that note, a personal shout out to our ICAS seniors for NOT doing this, and actually welcoming us juniors in a very interactive and upfront manner!)

Studies done on the impact of social media have are in one way or another linked to depression, anxiety, sleep deprivation, and increased risk of suicide. A few Social Networking mediums (like Snapchat, B612, etc.) have this concept of "filters", in which you can edit a photo of yourself in order to enhance your natural physical features. According to case studies done, teenagers get triggered when they see these edited photos posted online, and it degrades their self-respect significantly. In fact, according to a survey done by the Royal Society for Public Health, London, the app having the worst case of people affected in this manner is Instagram. Based on their research, over-usage of social media sites such as

Instagram, which primarily focus on physical appearance, are "contributing to a generation of young people with body image and body confidence issues". Over time, due to unrestrained usage, youngsters reach a point where they are so mentally deprived; they succumb to accepting online games like the "Blue Whale Challenge" in which they eventually end their life.

Another aspect of social media that drastically influences students is cyberbullying. Cyberbullying has reached a notoriety level so high, that there is even an app developed specifically to aid cyberbullies. Cyberbullying can actually be more severe than physical bullying, as it is relatively harder to track down the bully, making it much easier to get away with. In a recent project done by Microsoft Corporation in 25 countries to understand the global pervasiveness of cyberbullying, where they spoke to more than 7,600 students, India ranked third in the list. Although social media sites claim to have a strong security system, there are always strangers online who can get past it, by hacking. There are famous groups known for specializing in hacking, and in some cases, they even are paid if they can break down the security systems of some of the world's most famous social media databases.

All in all, social media is something which we can rely on as a valuable asset, but it may get critical once it becomes an addiction. (Can you sit for at least one hour of class in the day without opening your phone and double tapping on Instagram or seeing a snap?). We should not neglect the fact that social media, and the internet overall, is an artificial creation, and we are paying in some form or the other to use it, whether it is money, electricity, or just a huge chunk of our time. In delving ourselves into this artificial realm, we should not lose sight of and end up damaging the real world we live in, which is free of cost and devoid of the problems of the cyber world.



THE PIE

Over the course of our education, we've been taught that the universe is chaotic. Stephen Hawking's most famous idea that "The Universe came out of "nothing" arose (not really the right word) as a quantum fluctuation with literally no pre-existing state. No place, no time, nothing.

All of us have learned rational and irrational numbers in school. Irrational numbers are the personification of everything beyond our understanding in this universe. They are infinite and most of them have no particular order. But there's one such value that holds a very special value in the world.

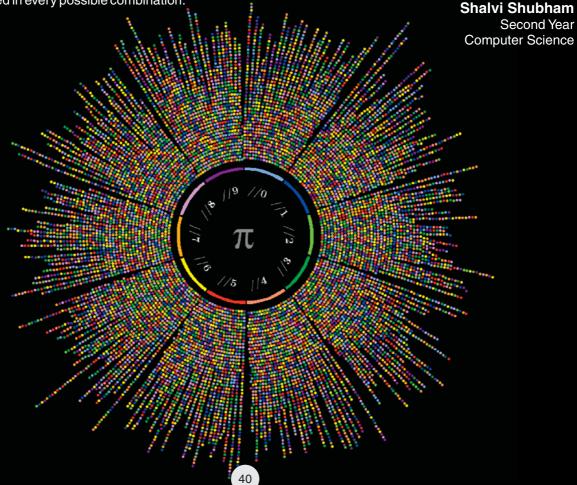
"π"

Pi, the ratio of the circumference of a circle to its diameter, keeps on going without repeating. Which means that, contained within the string of decimals, is every single other number. Pi may look random, but this infinite loop of digits is made up of hidden patterns that may hold the secrets to the Universe. And if you convert these decimals into letters, one would have every word that ever existed in every possible combination.

The digits of pi never end and never show a pattern. They go on forever, seemingly at random—except that they can't possibly be random, because they embody the order inherent in a perfect circle. This tension between order and randomness is one of the most tantalizing aspects of pi.

The Pi somehow pops up everywhere, even outside the calculations of Mathematics, and even concepts that are not circular. It is even present in the equation that defines how preciselywe know the state of the universe, known as Heisenberg's uncertainty principle. At position 768, there are six 9s in succession .This block of 9s is famously known as "The Feynman Point" after the name of the Noble-Prize winner, Richard Feynman.

While Pi is itself "chaotic", it is used to establish stability while also establishing a state of infinity. It gives us the glimpse into the realms of reality. Perhaps, human beings find pattern in everything, even in something as infinite as Pi, simply because that is only way we know how to relate.



To Be Or Not To Be (For ICASians)

Remember those first few initial days of college when the only thing running through your mind was, "Okay, so what am I supposed to do now?" Everyone goes through that phase of complete lack of awareness, the symptoms of which include being lost (mentally and physically, because the campus is so huge), the constant urge to say "What?" every five minutes and a perpetually present look of confusion. Just to make thinking back to those days a little more embarrassingly painful, here are a few things you should have known and done then.

1. Turn to page 394!

It's simple logic. Listen in class, jot down notes like a caffeinated water buffalo, practice questions and answer them appropriately during the exams to score marks (and the well-wishes of teachers). You're sorted. However, for whatever reason the listening in class and understanding concepts didn't work out, a magical hymn book awaits. It's called study material. A consolidated piece of art to guide you through the ups and downs of electrochemistry and Maxwell's laws? Perfect. Grab at first sight, students.

2. Don't mess with your mess card

Studies show that food is essential for survival, lack of food equals death within a week. Shocking, isn't it? They say the way to a person's heart is through their stomach (because we're not sexist), and to elaborate on that analogy, your mess card is your esophagus. Taking good care of your mess card is important, because once you lose it, the only way to get it back is go trekking to the MIT food court. Hiked up your shoes yet?

3. Cinderella lost her slipper at 11

Over the duration of your stay in the hostels, your fairytale here will have no prince charming, but there is an evil stepmother for sure- perm time. Of course, this version of the stepmother doesn't believe in midnight so you have to get back to the attic by 11 pm (how inconvenient, the ball gown was a hassle to put on) to stay out of trouble. The biggest pet peeve is the 1.5x surge pricing on the pumpkin carriage. It's probably more appealing to be the stepmother in this case, but oh well, can't always have what we want, can we?

4. Oui monsieur!

Most of us experience a chronic condition of laziness when it comes to attending classes, because who wants to wake up for an 8 am math class, right? Well, to burst the non-existent bubble that bunking a few classes is the medicine, it's not. This is because bunking a few classes leads to bunking more classes and ultimately it's a downward spiral for those who intend on not attending classes towards the end of the semester and studying instead, or for those uncalled bunks due to various reasons.

Of course, there a million other things you should do and shouldn't do, but it cannot be jotted down here because one, there's a word limit. And two, it's fun if it keeps you thinking and wondering what else must not go wrong.

To our friends transferring from ICAS this year, feeling the déjà vu yet?

Nidhi Suthar First Year Biological

"Anna."

The usual order, "ek Advance. ekbadam chai".

An exchange of a 50 rupee note and a

couple silver coins;

"Anna."

'Chaisutta' reads the caption on my iPhone as,

My snapchat story a testament to the 10am

break:

"Anna."

In goes the blue Canara card. out comes the 500 rupee note.

I walk away from the ATM machine. trying to ignore her-

"Anna."

Through the smoke arising from both cup and cigarette,

I see the shopkeeper shoo her away,

The irony of the bulge in my right pocket gets more apparent with every clumsy step she takes. Hands sticking front, bowl in hand,

I wonder what made me turn into a shell of myself, Every time I ignore her, and others like her,

I've never deserved the title, but they still call me
"Anna."

Gokul Nair First Year Computer Science



Time

A quiet day and an Earl Grey after countless days of pain Turned my car to a nostalgic lane

There was no music

There was no chime

Just me and that lovely strand of time

Back to the day where toys could fulfil me more than anything now

Oh, I wish I could relive those moments, but how?

All those innocent faces have now become deceitful.

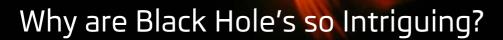
Fearing going too deep, that strand I now pull
But now I had submerged myself into that
hollow well,

To find an escape from today that is hell
While jumping in I saw all my moments pass by,
Remembering altogether that life is nothing but
a beautiful lie

After sometime I gained control of the wheel and found a way out,

And wondered- "Was it better when I spent my life full of doubt?"

Divyaanshu PanwarFirst year
Computer Science



Black holes may be one of the strangest and non understood, but still the most fascinating thing we might have come across till date - except ice cream, cause nothing is more fascinating than that.

They are massive objects – collections of mass – with gravity so strong that nothing can escape, not even light. The gravity being such that time could almost stand still as you go closer and elapse with such a slow speed that it distorts the whole space-time continuum.

The "point of no return" around a black hole is called the "event horizon". This is the region where the gravity of the black hole overcomes the momentum of material spinning around it in the accretion disk.

Once something crosses the event horizon, it is lost forever (Or maybe found on the other side by aliens, or maybe even more advanced beings than us?) It is often depicted in pop culture and various movies about a person falling into a black hole and coming out at the different place and time and despite that being an interesting theory, it's mostly impossible for that to happen. The gravity will absolutely crush the human, or rip him apart or both and as he falls in he may observe distorted images as the light bends around him, forming images that we can't comprehend, just like how we have seen white light split into various colors when it is passed through a prism, but in a much larger scale, with the intensity being so high that the man goes blind, not that it matters because he is going to die anyway (Or time travel? Interstellar again?)

This bring us to probably the most fascinating researchers and theories about black hole: Time Travel. What does one mean when they say time travel? Aren't

we technically travelling in time? Moving from one moment to another as the time keeps passing by? Or does it mean travelling ahead, knowing what future holds, being an anomaly in the continuum so as to be able to interact with the future and change it according to our will. It's remains one of the most sought out research, even if everyone waves it off as something that is impossible.

In 1935, Einstein and physicist Nathan Rosen used the theory of general relativity to elaborate on the idea, proposing the existence of "bridges" through spacetime. These bridges connect two different points in space-time, theoretically creating a shortcut that could reduce travel time and distance. The shortcuts came to be called Einstein-Rosen Bridge or Wormholes. They are warps in the fabric of space-time that connect one place to another, which could be a universe of its own, with its own stars, galaxies and planets. Unlike a black hole and wormhole has no "event horizon" that means, objects that pass through it can come back if the required equipment is present on the other side. Still, this is all a wild speculation and no actual proof exists, but it does serve well when it comes down to science fiction and all the amazing possibilities it opens us.

Bending time and space is something definitely out of our reach for now, but we can let our creativity ans thoughts run wild in the beauty of the cosmos and all the things unknown.

> Anishka Sharan Second year Computer Science

The Greatest Tragedy of India

Today, 80% of the Indian population recognize themselves as Hindus, or people belonging to the religion of Hinduism, but who came up with the concepts of what we today call Hinduism. Well it is fascinating to know that the word 'Hindu' and 'Hinduism' both have foreign origins and were never used by Indians. Secondly, the word Hindu never referred to people belonging to a certain religion or a group of people following certain common religious practices and sharing similar beliefs.

The first time someone used the word Hindu was in Greece in the 4th century B.C.E. Megasthenes in his book 'Indica' refers to people living beyond the Indus River as 'Indu'. The Arabs later changed it to 'Hindu' because of various mispronunciations. Finally the land beyond the Sindhu, where people called Hindus live was called al Hind in Persian and later Hindustan by the 12th century A.D. Thus, the word Hindu referred to all people who lived beyond the river Sindhu. It was a geographical classification and not a religious one. Therefore, now we have broken one of the widely circulated myths around the country that Hindustan refers to the land of Hindus, but Hindus here were of geographical and not of religious origin.

Now the main question arises in that what must be the name used by people following the Hindu religions, beliefs and practices. The answer to this is not as simple as you may think. Some scholars suggest that 'Sanathana Dharma' is the right fit. However, nowhere in any of the Hindu scriptures do the Hindus call themselves as belonging to the Sanathana Dharma. Sanathana Dharma literally means the 'eternal religion', but this is more of a claim rather than a name. When Hinduism originated in the plains of Ganga, it was the only religion, rather the only set of practices and beliefs of the people, thus there was no need for a name for the religion. People referred to themselves by their occupations or the Varna's they belonged to, rather than by a religion simply because they followed the same religion.

The first time that Hinduism was questioned was at the time of the Buddha in the 500 BCE, but he too was very particular, he never wanted to start a new religion rather wanted to shun the Brahaminical practices of his time and embrace a new way of life, which went beyond the Brahmin dominance on the world of spirituality.

So thus looking back at our ancient history we do not get much information about the names, thus must we ponder upon so much? In my personal opinion, it is not very wise as the famous Bard of Avon said 'What is there in the name?'.

Now let us move on to some other serious issues, one pertaining to our medieval history. Today there seems to be a perception in the minds of many people that our medieval history is some sort of fight between the invading Muslim

rulers and the indigenous Hindu rulers. This is not completely true, the people of that time never fought on religious lines, rather they fought simply to gain more territory an power. Religion was not a driving force for them. One of the best examples of this is the Battle of Haldighati between MaharanaPratap of Mewar and Akbar's forces. Now this may seem like a classic Muslim ruler vs Hindu ruler war but as always, the devil lies in the detail. On the side of the Mughals leading their army was not Akbar rather following the Turkish tradition, it was his Commander in Chief Mann Singh I of Amer (wait what! A Hindu was leading Akbar's forces), and on RanaPratap's side he was leading his forces followed by his Commander in Chief Hakim Khan Sur (What! A Muslim on the Maharana's side). There were Muslim soldiers in Mewar's army and more than 60% of Akbar's army was Hindu, therefore it is clear that these kings could not have been fighting on religion, rather territory and power were the driving forces for it.

Religion sometimes was used as a tool by the court historians of that time to justify the wars waged by their rulers. Many times, it is said that Muslim rulers attacked and destroyed temples, well, this is very true, but one must understand that the motive behind this was to loot the wealth inside these temples rather than hurt any religious sentiments. Rather one will be surprised to find that even Hindu rulers destroyed temples. It was a tradition, that when a Hindu king attacked another Hindu king and won over his kingdom, he would go and destroy the temple of the 'Kuldevta/devi' of his predecessor to establish his firm control over his kingdom.

Thus, one must understand that in India, temples were 'houses of power' and hence were the targets of various rulers who trod on these lands. The last question that now remains before all of us is, if we were aware about all these things was suddenly happened that our history was retold in such a biased malicious manner, the simple answer is the British Raj. In the first revolt of 1857, the British Raj saw how the Hindus, Muslims and Sikhs, fought together to overthrow the 'foreign enemy' as they would call them. They soon realized that if they were to rule this country they had to divide it and the best tool they found was religion. They altered our histories, retold our tales of valor and painted them in the light of religion. These divisions over the next hundred years would dig deep that they led to the formation of a different country 'Pakistan' based purely on this philosophy that the Hindus and Muslims of the subcontinent could not co-exist peacefully. Suddenly in a matter of hundred years the coexistence of a thousand years was shun, and that I believe is the greatest tragedy of our times.

Vishal Bajaj

Second year Electrical & Communication



Deakin University, Australia in partnership with ICAS, Manipal University offer students to transfer to the third year of a Deakin program after successful completion of a ICAS program in the areas of Engineering and Information Technology.



Deakin University is proud to be in the top 1% of universities across all three of the major international university ranking systems of World Universities (QS) and is ranked amongst Top 50 by QS for Universities under 50 years. Deakin has achieved the highest level of overall student satisfaction amongst Victorian universities for seven consecutive years (2010 to 2016).

Deakin is now providing Career Education and Graduate Employment Services. Students have the opportunity to be guided through their education towards a career of choice. Through these services, they could be involved in industry projects and work experience programs, enabling them to acquire the knowledge, skills and practical experience employers are looking for.

Deakin University's Centre for Advanced Design in Engineering Training (CADET) provides some of the best future-focused engineering and design facilities, a curriculum framework configured around 'design based learning' and industry collaboration, which will enable graduates to become as visionary and forward thinking as CADET itself.

COURSES AT DEAKIN

The School of Engineering offers students the opportunity to study a range of engineering disciplines at undergraduate and postgraduate level, and maintains strong industry links through its joint research and education programs. The key courses are:

- Bachelor of Civil Engineering(Honours)
- Bachelor of Electrical & Electronics Engineering (Honours)
- Bachelor of Mechanical Engineering (Honours)
- · Bachelor of Computer Science
- · Bachelor of Information Technology
- Bachelor of Mechatronics Engineering (Honours)
- · Bachelor of Software Engineering (Honours)

ENGINEERS AUSTRALIA









THE DEAKIN ICAS PARTNERSHIP

The Deakin ICAS Partnership provides opportunities for students studying Engineering and Computer Science at ICAS to transfer to the a relevant Bachelors program on-shore at Deakin University in Australia through Credit for Prior Learning (CPL).

For terms and conditions for enrolling in a Deakin University program, please feel free to write to southasia@deakin.edu.au or call ±91 II 26544740 / 26544725.

You may also contact the Director, ICAS for more information on the partnership.

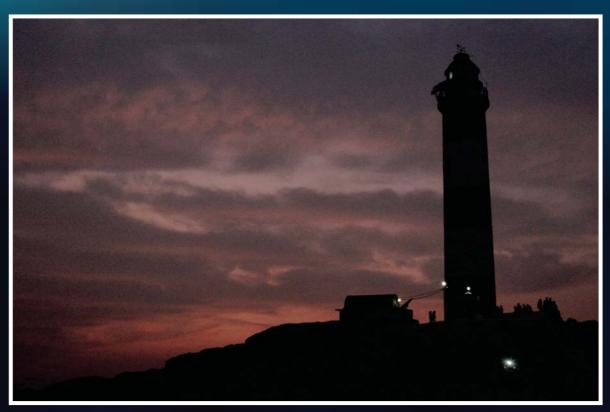
deakin.edu.au/sebe

Deakin University CRICOS Provider Code 00113B





Saheen Feroz Second Year Computer Engineering



Saheen Feroz Second Year Computer Engineering



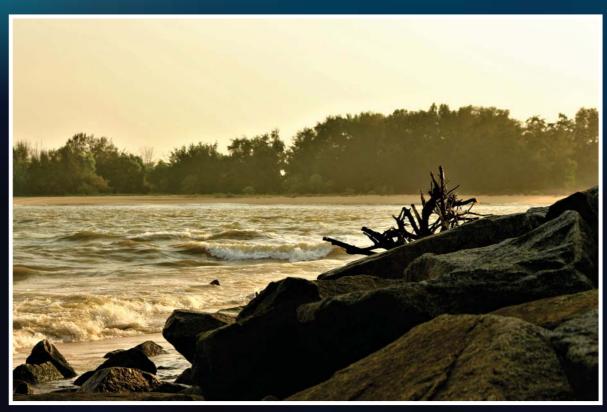
Saheen Feroz Second Year Computer Engineering



Saheen Feroz Second Year Computer Engineering



Rumit Dalal Second Year Mechanical Engineering



Saheen Feroz Second Year Computer Engineering



Rumit Dalal Second Year Mechanical Engineering



Rumit Dalal Second Year Mechanical Engineering



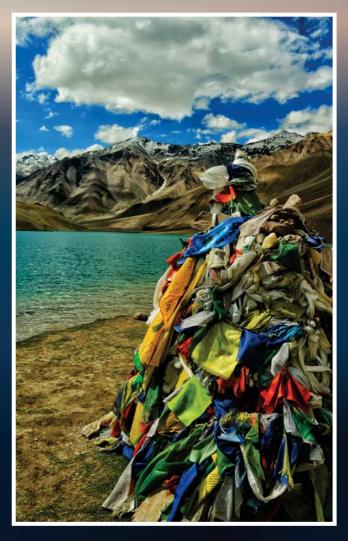
Rumit Dalal Second Year Mechanical Engineering



Rumit Dalal Second Year Mechanical Engineering



Rohan Verma Second Year Mechanical Engineering



Rumit Dalal Second Year Mechanical Engineering

Study in the SA

at Milwaukee School of Engineering

At Milwaukee School of Engineering (MSOE), students work with industry experienced faculty members in state-of-theart laboratories to achieve an optimal blend of theoretical and practical knowledge. Understanding theoretical concepts and knowing how to apply them is key to the success of MSOE graduates.

> MSOE's campus is located in the city of Milwaukee, Wisconsin, just north of Chicago, Illinois.

Milwaukee has a metropolitan population of approximately 1.6 million residents. The location provides students with easy access to all the vibrancy of a large metropolitan area, yet the close community feel of a small campus. Theatre and arts venues, major-league sporting events, Lake Michigan, restaurants, shopping and many cultural and recreational activities are all within a few blocks

of campus. Milwaukee is known for its clean and friendly community, and its rich ethnic heritage. The city's population is made up of immigrants from around the world and celebrates its heritage throughout the year with ethnic festivals and excellent international restaurants.

For more information, contact:

Kayla Maule

Assistant Director of International Admission

MSOE at a Glance

Top 10

Undergraduate Engineering Program

(U.S. News & World Report)

Graduate outcomes rate

16 to 1

Student-tofaculty ratio

S60.738

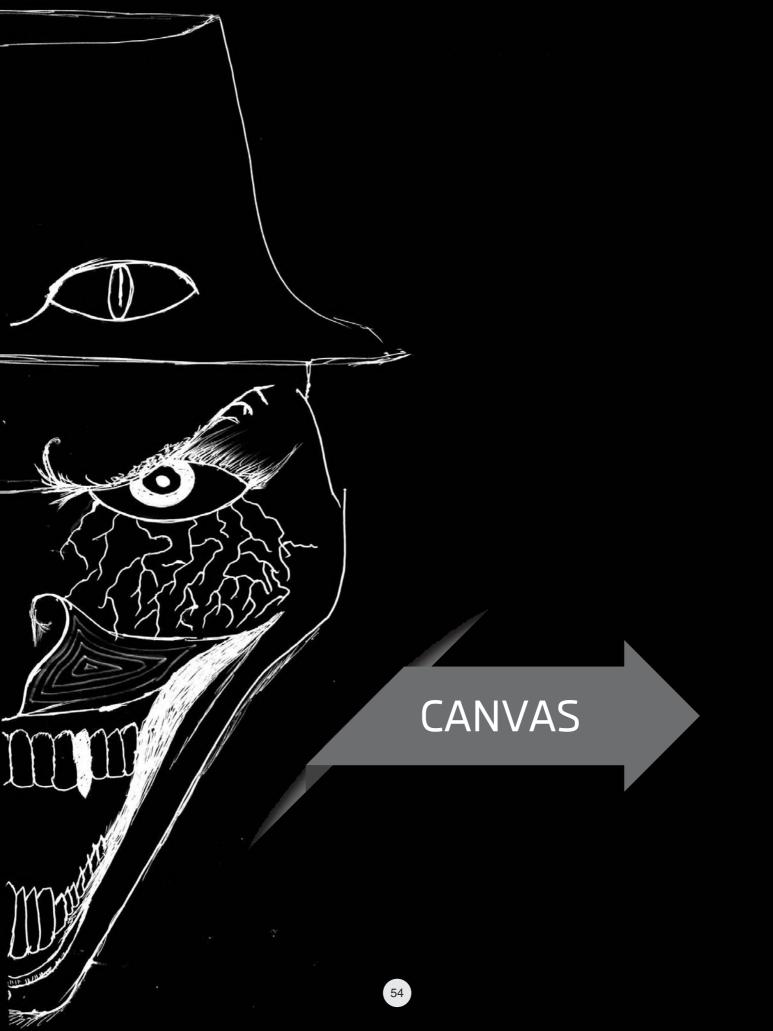
Average starting salary

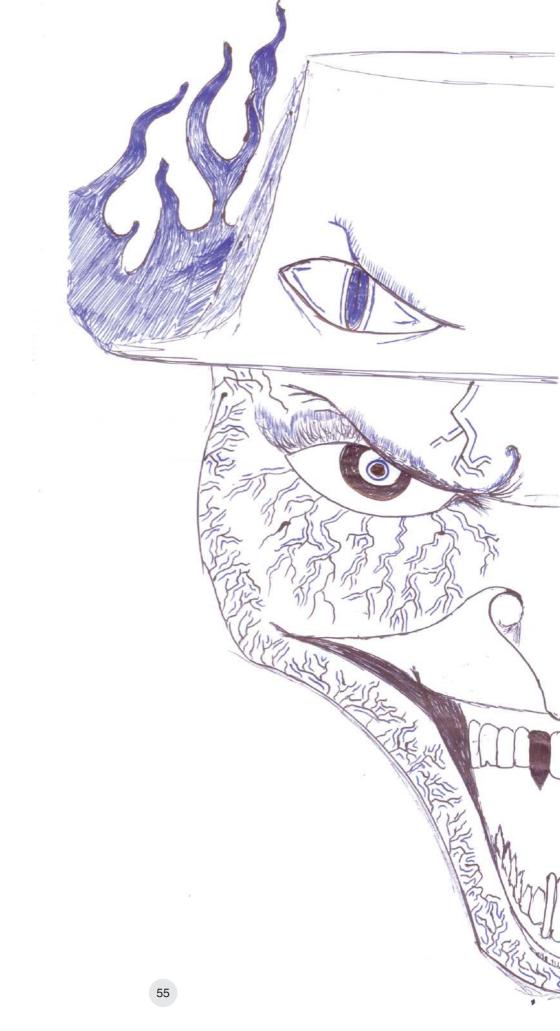
Scholarships

available

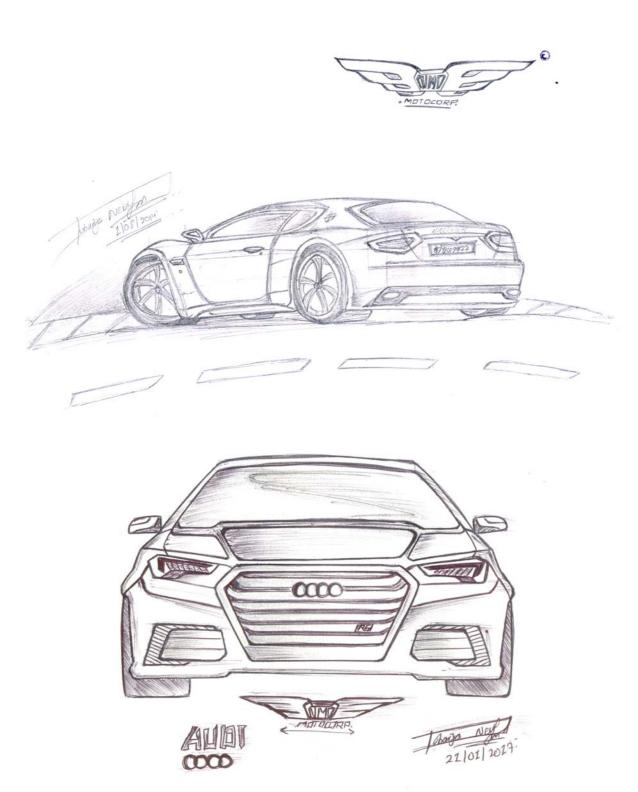
UNIVERSITY

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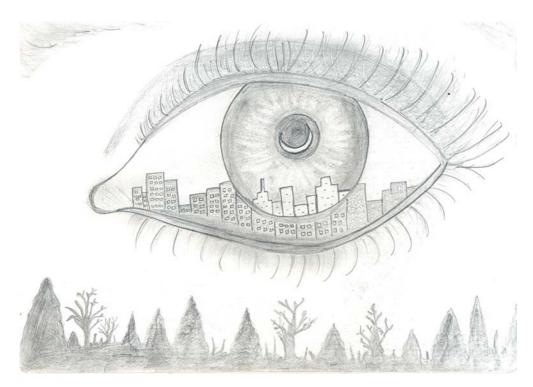




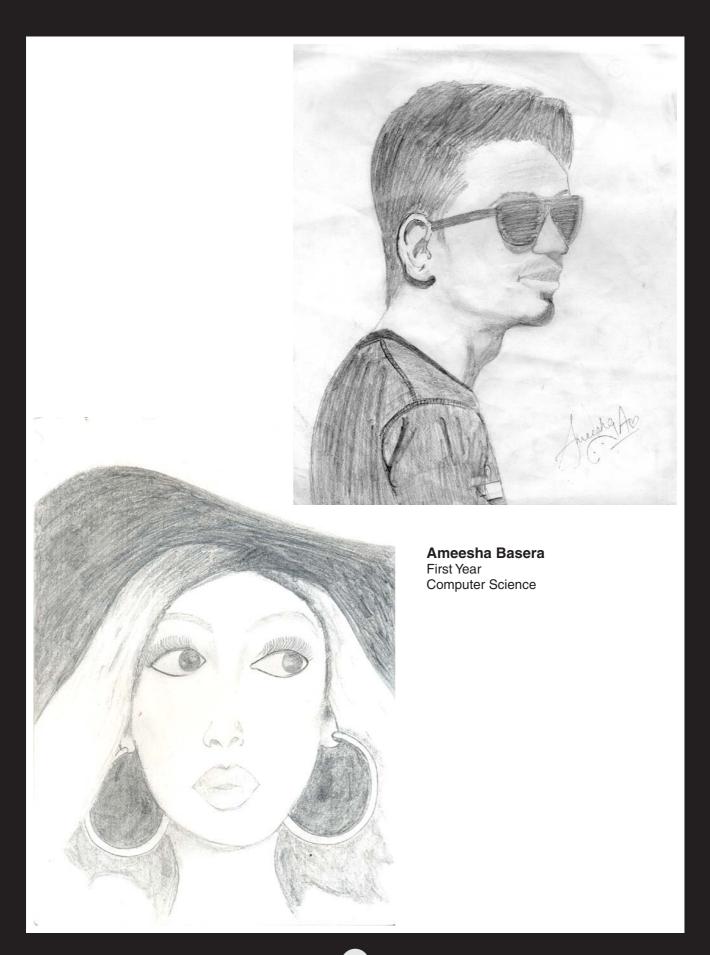


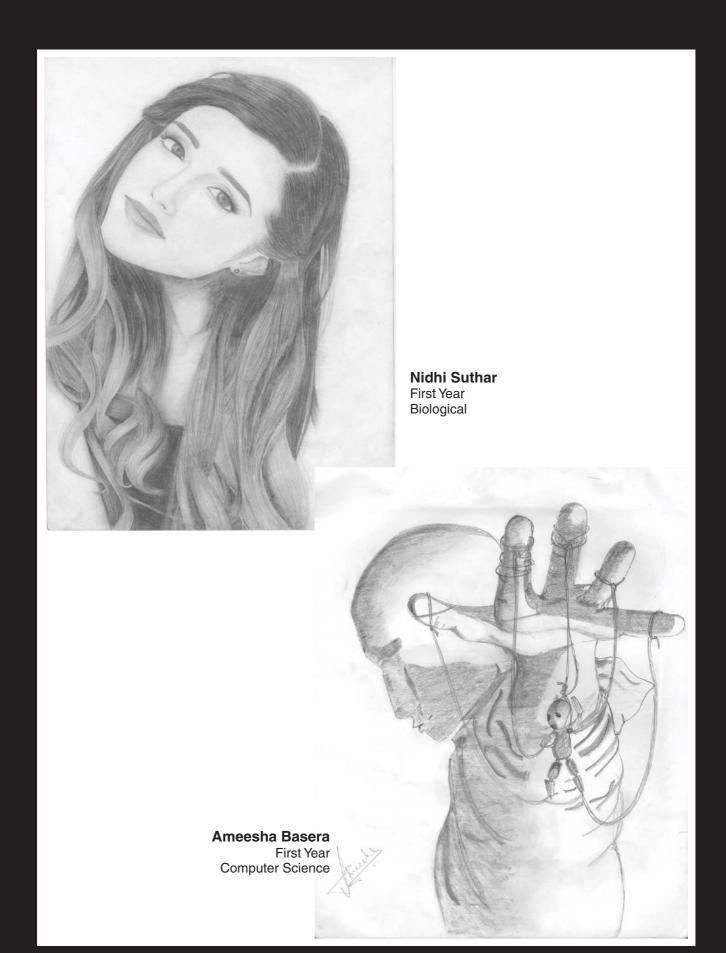
Nevil Dobariya Second Year Mechanical Engineering

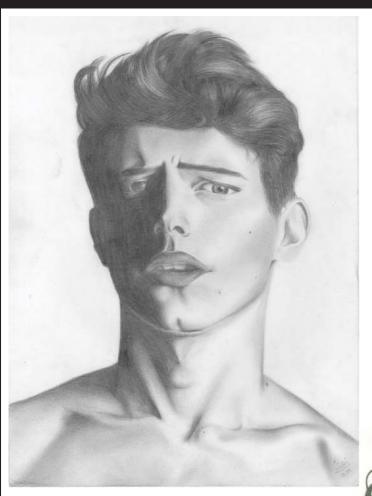




Ameesha Basera First Year Computer Science





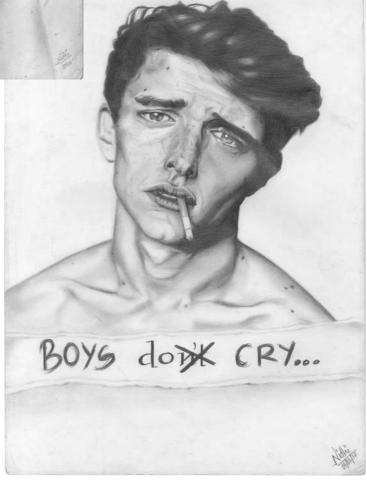


Nidhi Suthar First Year Biological





Nidhi Suthar First Year Biological





Study on our 2+2 Twinning Programme

Lancaster is a global university and top 10 in the UK

Our degrees are designed to ensure you get the skills needed for employment. You can do your final year project in a company to gain valuable work experience, including Microsoft, Accenture, Nokia and SAP.

With our Centre for Employability, and Infolab's links to businesses we can help you find work during and after your degree.

- Scholarships for all students who meet our entry criteria
- Opportunities for working on projects linked to industry
- BEng degrees in Mechanical, Electronic and Electrical, Mechatronics, Chemical, Nuclear Engineering, Computing and Software Engineering
- Accredited by the Institute of Engineering & Technology graduates eligible for Chartered Engineer status
- Good career prospects after graduation



For more information contact Dr Michele Luxon <u>m.luxon@lancaster.ac.uk</u>
For VISA advice contact our agents at www.thechopras.com <u>or</u> www.edwiseinternational.com

www.lancaster.ac.uk

Scholarships & Fees

We offer all students a scholarship if you meet our admissions criteria, with a 20% fee-reduction.

Based on our current standard international fee levels this would mean you receive a scholarship of £3,778 (3.49 Lakhs). This would reduce the fees from £18,890 (17 Lakhs) to £15,112 (13.6 Lakhs) for each year of study.

This scholarship would stay in place over the period of study and if you wish to stay to do your master's degree then you would continue to receive the feereduction.



Accommodation



All international students are guaranteed on-campus rooms. The accommodation has been voted the best UK University accommodation in the UK by students.

You have a choice of eight colleges with different room types to suit your individual needs.

Costs range from approximately £85 to £135 a week, depending on whether you choose a standard room or one with a private bathroom.

We estimate living costs to be around £7,000 (5.6 Lakhs), including accommodation.

The city of Lancaster

Lancaster is in the north west of Britain, about 1 hour from Manchester and Liverpool. The city centre is only 10 minutes from the campus by bus.

Once a Georgian port at the centre of trade with the West Indies, it has a fascinating history and culture.

We even have our own Taj Mahal! The Ashton Memorial, was built by Lord Ashton as a tribute to his second wife (a very romantic story) and sits within the beautiful 54-acre Williamson Park which is very near to the town centre.





































































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- Ranked in the top 250 of universities in the world by the Times Higher Education.
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We offer bachelors and masters programmes in:

- Aerospace
- Communications and Electronic
- Computer Science
- Electrical and Electronic
- General
- Mechanical
- Software

A representative from Leicester will be visiting ICAS soon.

Contact us

To find out more about our programmes and how to apply:

Prof. Dr. R S Aithal at ICAS

Ian Jarvis

International Director
College of Science and Engineering
imj1@leicester.ac.uk

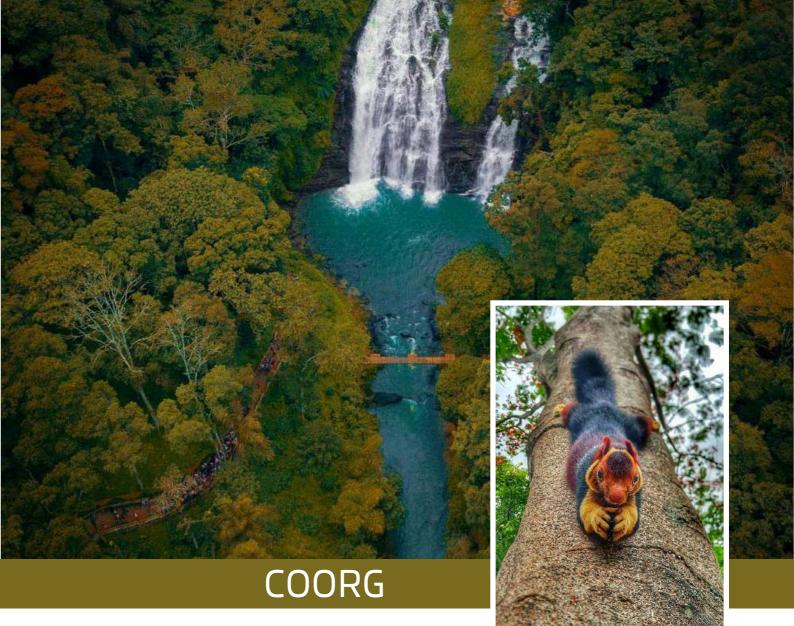
Vishnu Vankayala

Regional Manager (South Asia) vv20@leicester.ac.uk

t: +44 116 252 2871 f: +44 116 262 2619

e: engineering@le.ac.uk





Situated in the midst of imposing mountains in Karnataka with a perpetually misty landscape, Coorg is the place to be for all nature lovers. It also serves as an ideal destination for those who enjoy an adrenaline rush,large number of adventure sports opportunities. Coorg, officially known as Kodagu, is one of the most affluent hill stations in Karnataka. It is well known for its lush greenery and breathtakingly exotic scenery. Forest covered hills, spice and coffee plantations only add to the landscape.

The Western Ghats were added to the UNESCO world heritage list for their rich biodiversity. Being situated on the eastern slopes of these ranges, Coorg is a perfect spot to experience this biodiversity. Nagarhole Wildlife sanctuary is the home of the Indian bison, mongoose, wild hogs and the famous Malabar giant squirrel. If you get lucky you may even spot the elusive Kodagu Tiger. Coorg offers a bountiful of rejuvenating nature time.

There are several small islands, perfect for a casual stroll, some canoeing or just a picnic.

The best part of this hill station is the fact that it isn't just a pretty place; it also has abundant activities to keep yourself entertained as you enjoy your getaway. With almost a dozen popular treks near the city, and many more offbeat experiences in the same, Coorg is an adventurer's paradise. Trekking in Coorg is the best way to explore the natural beauty of this mesmerising town. There is a lot of scenic beauty that is waiting to be explored and the best way to do that is by following the trekking trails to the very top and watch the grand expanse of green in front of you, truly a stunning vista.

October - March is the best time to visit Coorg.

Distance from Manipal: 200KM



Kaup Beach is one of the major beaches in the city of Mangalore. With its tropical climate and bevy of attractions that beckon tourists from across the country. The character of Kaup beach is enhanced by the striking black and white lighthouse built on a sprawling rock on the beach. The lighthouse is open for visitors during certain periods of time during the day. It offers a delightful view of the entire beach and seashore that will surely take your breath away.

For the adventure seekers, scuba diving is also available at Kaup beach. The deep sea view in this area consists of coral reefs, attractive and rare species of fishes and variety of other aquatic animals. The diving spot lies 30 minutes from the beach by a speedboat.

Distance from Manipal: 22 KM



KUDREMUKH

Nestled in the heart of the Western Ghats, in the Chikmagalur district of Karnataka, Kudremukh is a beautiful trek across gently rolling green hills and misty valleys. The third highest peak in the state at 6,207 ft, the trek is a day's climb from the base village.

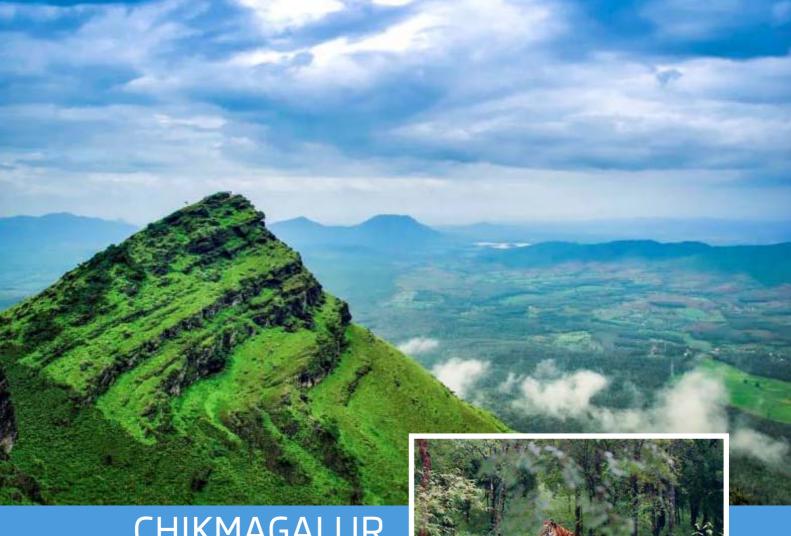
'Kudremukh' literally means 'horse's mouth' in Kannada. The name comes from the distinctive shape of the peak. It is a trek of moderate difficulty, and can be accomplished over a weekend. The landscape

traversed is mostly wide green grasslands, and a few patches of forest with a few streams passing through them. The peak is situated in a National Reserve forest. If you're lucky, you may get to see an occasional sambhar deer or peacock. Just lookout for leaches!

Time to Trek: 5-6hrs (One Side) Trek Distance: 9 KM (One Side)

October - May is the best time to visit Kudremukh.

Distance from Manipal: 88 KM



CHIKMAGALUR

Chikmagalur is a beautiful district situated on the western part of Karnataka. It is mostly popular for its coffee plantations and a pleasant climate. Another renowned attraction that Chikmagalur is known for is its Baba Budangiri ranges. The hill station, thanks to its picturesque landscapes and greenery, has earned a lot of attention from tourists. The literal meaning of Chikmagalur is 'Land of the younger daughter. There are many waterfalls located in this district like the famous Shanti waterfalls, Hebbe fallsand several others. Chikmagalur is a birth place to many renowned freedom fighters, poets, intellectualsand politicians. In fact, Indira Gandhi once represented Chikmagalur in the Indian Parliament.

One of the most serene and picturesque destinations of the state, Chikmagalur should be on your 'to visit list'. Situated at a height of 3400 feet, this hill station will never cease to impress you. Once a melting pot of different cultures, even today Chikmagalur has always welcomed different faiths. There are many places and attractions in Chikmagalur that you must visit.

Mullayanagiri is one of the best attractions in Chikmagalur. The highest peak in Karnataka, it stands tall at 2000 meters. This place is a favourite among many trekkers since it has some challenging and scenic trekking trails.

The Bhadra wildlife sanctuary is a Project Tiger reserve that is situated on the northwest of Chikmagalur. It is one of the most popular tourist attractions that are home to diverse flora and fauna. People who visit the sanctuary come here for a day outing. This sanctuary has an estimated 33 tigers, apart from which you will also find leopards, sambhars, chitalsand wild boars among several other animals.

September - April is the best time to visit Chikmagalur.

Distance from Manipal: 160 KM

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Ohio State University—Columbus is a public institution that was founded in 1870. It has a total undergraduate enrollment of 45,831, its setting is urban, and the campus size is 1,777 acres. It utilizes a semester-based academic calendar. Ohio State University—Columbus's ranking in the 2018 edition of Best Colleges is National Universities, 54. OSU holds the QS World University ranking of 86 placing it in the top 100 universities in the world.

OSU is known for its academic rigor as well as for its Ohio State Buckeyes, its sports program, which is a member of the Big Ten athletic conference.

Although it's a large university, with more than 45,000 undergraduates for the 2016-2017 school year, the student-faculty ratio is 19:1, according to U.S. News data. Students can join several enrichment programs, such as University Honors or the Morrill Scholarship Program, to enhance what they learn in their majors.

Outside of class, many students enjoy attending Ohio State football games. In the last two years, the Buckeyes have sent 19 players to the NFL draft.

Estimated Tuition Fee:

Tuition (includes instructional	
and general fees)*	\$32,623
Room and board**	\$12,252
Books and supplies	\$1,168
Health insurance	\$2,994^
Living expenses	\$3,652

Admission Eligibility Criteria:

- If you have fewer than 30 semester credit hours, you will be considered under the criteria for new students in Engineering as described above for new first-year students.
- Earned a score of L (Calculus level) on the Math Placement Exam or have completed college level theoretical calculus.
- You must request that your testing agency send official scores electronically to Ohio State demonstrating the English proficiency level outlined below:
- TOEFL: 79 or higher on the internet-based test, 550 or higher on the paper-based test
- IELTS: 6.5 or higher
- ACT: 21 or higher on the English section
- SAT: 27 or higher on the Reading Test
- 4. A minimum grade of "C-" (or the equivalent) is required to transfer prerequisite courses.

Merit Based Scholarships Eligibility Criteria:

As a merit scholarship recipient, it is your responsibility to know and understand the following eligibility requirements:

- 1. You must be enrolled full time at Ohio State.
- 2. You must be pursuing your first undergraduate degree.
- 3. You must maintain the minimum GPA requirement by the time of evaluation (see table below).
- 4. If you meet the minimum GPA requirement by the time of evaluation, your scholarship will be renewed automatically for up to eight semesters.
- 5. Other eligibility requirements may exist for specific programs and will be communicated to you.

Scholarships (Maximum eligibility: 8 semesters)	Minimum GPA*
Eminence	3.4/3.5 (based on program of study)
Maximus	3.2
Provost	3.2
Trustees	3.2
National Buckeye	2.5
Distinction (MSP)	3.2
Prominence (MSP)	3.0
Excellence (MSP)	3.0
Land Grant	3.0

Transfer Credit Policy

Course credit will transfer to Ohio State if the course was taken at a regionally accredited institution, the course was non-remedial, and you received a C- or better. In a few cases, a D or D+ may transfer.

Admission Criteria

GPA: Transfer students with at least 30 transferable semester hours (or the equivalent), including credit for at least one calculus course, and a GPA of 3.0 or higher (on a 4.0 scale) enroll as pre-majors. Transfer students with fewer than 30 semester hours (or the equivalent) are considered using the freshmen criteria. Students not directly enrolled in ENG enroll in the Science, Technology and Environment Exploration program.

University transcripts: Request that all universities you've attended send your official transcript to Ohio State, along with any diplomas, certifications or diploma statements awarded. Include a transcript of any college course work taken in high school. You do not need to provide a transcript for course work completed at Ohio State.

Application fee

Before submitting your application, you will be asked for a NONREFUNDABLE \$70 application fee.

Purdue University





Purdue University is a public research university located in West Lafayette, Indiana, USA. It is home to three of the world's TOP500 supercomputers (Rice, Conte, and Carter), the largest university-affiliated incubation park in the U.S., 4 Nobel Prize laureates, 2 World Food Prize laureates, and 3 National Medal of Technology and Innovation laureates.

In the QS World University Rankings (QUR) by Subject, PU has its rank in the top 100 in Engineering and Technology, and has an overall QS WUR of 105.

The university is also located in an excellent place to live and work—Forbes ranked Greater Lafayette as the #2 best small place for business and careers.

Estimated Tuition Fee:

For nonresident students:	\$41, 984	
For international students		
(students holding F, J, and some		
other visa types):	\$44, 144	
Some programs have additional fees:		
1. Computer Science -	\$2,050	
2. Data Science -	\$2,050	
3. Engineering -	\$2,050	
4. Management -	\$1,436	
5. Purdue Polytechnic -	\$572	

Indian Student Body

Purdue is currently home to 2001 Indian students—933 undergraduates and 1068 graduate and professional program students. Purdue's Indian students hail from every major metropolitan area in India and from Indian students on six continents. Indian students represent 21.9% of the international student body.

Financial Aid for International Students

Although need-based financial aid isn't typically available to students, merit-based financial aid may be available for both undergraduate and graduate students from private sources; for more information on how to receive financial aid, go to http://www.edupass.org/.

To get a full list of scholarships available at Purdue University, visit the website

https://www.purdue.edu/niso/scholarship/additional/international.html

The website will direct you to the list, in which there is a column called "Basic Eligibility", which gives all the basic criteria necessary to apply for the scholarship (including US citizenship).



Important transfer checklist ICAS students should follow before applying

- Since you are applying as a transfer student, you may transfer an unlimited number of college credits to Purdue but must earn at least 32 Purdue credits to earn a degree from the University
- To be transferable, coursework must meet the following criteria:
- 1. It was earned at an accredited institution.
- 2. It is college-level coursework (not remedial or developemental)
- 3. You received a grade of atleast C-
- To be considered, you MUST meet the minimum GPA and any specific course requirements for the major you want. To know about the minimum GPA required and the course requirements major-wise, go to the website down below, which leads you to the full list of the majors you can transfer to, and go through the transfer requirements of your major of interest:

http://www.admissions.purdue.edu/majors/index.php

- Before you can apply as a transfer student, you must have completed at least 12 semester credit hours of college-level coursework. Remedial college courses and advance/dual college credit (credit earned as part of high school coursework or test scores such as AP and IB) does not count toward this minimum
- You must provide an SAT or ACT test score unless you have at least 24 graded credit hours of collegelevel coursework (not remedial) or have been out of high school for at least five years. You must send scores electronically, from the testing agency
- Apply as early as possible prior to the term you want to begin — admission to specific majors will close if we reach capacity, even if that occurs before the application deadline
- There are two online tools you may use to determine how credit may transfer to Purdue. You may type these in the search engine of Purdue University's website to get access to them:
- 1. Purdue Transfer Equivalency Self Service
- 2. Transfer Credit Course Equivalency Guide

- Admission to the following is closed to students who wish to transfer from another college or university:
- 1. For SUMMER transfer applications:
 - Aeronautical and Astronautical Engineering
 - Aeronautical Engineering Technology
 - Agricultural and Biological Engineering
 - Biomedical Engineering
 - Environmental and Ecological Engineering
 - Mechanical Engineering
- 2. For FALL transfer applications:
 - Biomedical Engineering
 - Agricultural and Biological Engineering
 - Mechanical Engineering
- Purdue requires all international applicants from a non-English speaking country to submit an English proficiency test score. English proficiency can be demonstrated by submitting ONE of the following official scores:
- 1. TOEFL: A score of 88^iBT or higher
- 2. IELTS: Overall score of 6.5 or higher with at least a 6.0 in each section
- 3. SAT: SAT Reading Test (new SAT)-33 or higher
- 4. ACT: 28 or higher in English
- 5. GCE/GCSE/IGCSE: Grade of A or B in First-Language English
- The transfer application for spring enrollment (term that begins in January) becomes available on August
 1. For summer or fall enrollment, the transfer application becomes available on December 15
- After submitting an application, you must provide final transcripts from all college coursework you have completed (any university, not just the most recent).
 Failure to do so may result in admission denial or enrollment cancellation
- For more details, thoroughly go through the following website:
 - http://www.admissions.purdue.edu/transfer/index.php

University of Toronto





University of Toronto is a world renowned university located in the heart of the Greater Toronto Area, known for its extraordinary variety of things to explore and it's multicultural diversity. Ranked #1 in Canada according to the 2018 QS World University Rankings, it has three campuses located in Scarborough, St George, and Mississauga with well integrated teaching facilities and a comfortable student environment.

The university offers over 700 undergraduate programs, ranging from arts to applied sciences and engineering. Prospective students have a variety of subjects to study, and non-scholastically, over a thousand student clubs across all of its campuses. The list of programs is on their website-

https://www.utoronto.ca/academics/programs-director

Transfer Applicants

Being a vastly diverse university, a lot of Indian students apply as freshmen or as transfer students to pursue their higher education.

Admission will be based on the academic record, with close attention paid to the prerequisite subjects, plus requested supplementary or profile information (if required).

Details about admission requirements pertaining to your educational jurisdiction are available at future.utoronto.ca/international

Transfer students may qualify for transfer credit, provided that the content of courses taken is considered appropriate for the intended degree program. For most of the U of T programs, students having completed up to two years of study can be granted a maximum of 10 full-course transfer credits. The following link will help a transfer student to check which courses can be transferred to U of T- http://transferex.utoronto.ca/

English Language Prerequisites

Common Tests / Qualifications:

Test of English as a Foreign Language (TOEFL):

Internet-based test: total score of 100 + 22 on writing section.

Paper-based test: total score of 600 + 5.0 on TWE.

International English Language Testing System (IELTS) Academic:

Minimum overall band of 6.5 with no band lower than 6.0.

Scholarships

Scholarships are provided to students based on their academic merit and credentials. There are two types of scholarships offered to international students:

Lester B. Pearson International Scholarships:

The Lester B. Pearson International Scholarships at the University of Toronto offer outstanding students from around the world access to a transformative four-year undergraduate education.

U of T Engineering Scholarships:

The Faculty of Applied Science & Engineering has scholarships available for international students. Visit discover.engineering.utoronto.ca/money for more information.

Visa and Study Permit

For international students, it is required that you apply for a study permit, which is an immigration document that allows you to live temporarily in Canada while you study at a post-secondary institution. You will also require an Entry Visa (or Temporary Residency Visa) which will be granted by the Visa office processing your study permit.

Fee Structure

For international students, the program fee is about 40,000 USD, or 53,000 CAD. Residential costs are approximately from 8,000 to 14,000 USD, or 10,000 to 18,000 CAD.

Living in the Greater Toronto Area

The city has exceptional diversity at its very core: nearly half of Toronto's 2.7 million residents were born outside Canada. The city's living mosaic continues to draw the best and the brightest, who come here seeking world-class business, culture and education in one of the safest cities in North America. Transit makes it easy for students to travel across the city, and the international villages integrated in the mosaic of Toronto providing an exceptional living experience for international students.

For more details, log on to

https://future.utoronto.ca/international/welcome-indian-students



University of New South Wales





Australia is quickly emerging as a nation with world class facilities and growth and most of its credit goes to the education provided to the variety of students studying there. With universities focusing heavily on practical problem solving skills, management and communication skill, there is little to be assumed as to why it is among the leading countries for higher education.

One of the top rated university among the many is University of New South Wales, or UNSW. The origins of the university can be traced to the Sydney Mechanics' School of Arts established in 1833 and the Sydney Technical College established in 1878. These institutions were established to meet the growing demand for capabilities in new technologies as the New South Wales economy shifted from its pastoral base to industries fueled by the industrial age. The main UNSW campus, where most faculties are situated, is in Kensington, Sydney. In the 2018 QS World University Rankings UNSW was ranked globally as 45th overall (3rd in Australia and 1st in New South Wales), which, considering the number of universities world wide is a wonderful spot, making UNSW one of the most sought after college for both the young and old looking for quality education that can not only expand their knowledge but also provide them with hands on experience in the real market, that also, in a economical hub that is Sydney.

A college this reputed does require that the students applying for it have a great overall performance with special focus on the core subjects like maths and science as it produces the most employable engineers in the entire continent, following other reputed schools like ANU, University of Sydney and such.

For a student studying in ICAS, they have the opportunity to apply to UNSW for their final undergraduate degree and can even apply for masters once they have completed their bachelors. Being a competitive school, it does require a certain GPA that the students must maintain (A cumulative 3.0+ GPA) in the first three semesters of their ICAS program which grants the students full credit transfer as well as scholarship for excellent performance during their college in India. UNSW offers several scholarships and support programs to high achieving students. The rough fee estimate for studying enginnering for an year is \$43,960 (AUD) -- Australia is considered to be among the countries that provide education at a reasonable cost. The living expenses might be more than other countries, but the overall financial outcome is definitely unparalleled.

A very prestigious college, a degree from UNSW can help shape one's life in ways that is not only productive to him or her but also to the global market towards reaching a better and more developed future.

University of Wisconsin Madison





The University of Wisconsin-Madison is a public research university in Madison, Wisconsin, United States. Founded when Wisconsin achieved statehood in 1848, UW-Madison is the official state university of Wisconsin, and the flagship campus of the University of Wisconsin System.

The UW is one of America's Public Ivy universities, which refers to top public universities in the United States capable of providing a collegiate experience comparable with the Ivy League. UW–Madison is also categorized as a Doctoral University with the Highest Research Activity in the Carnegie Classification of Institutions of Higher Education. In 2012, it had research expenditures of more than \$1.1 billion, the third highest among universities in the country.

A research university, UW has been home to number of pioneering achievements, such as the discovery of vitamins in the early 20th century, the cultivation of embryonic stem cells in the late 20th century and, in 2010, the discovery of a new human species. Since its inception, over a dozen Nobel Prize awards have been awarded to faculty and alumni of UW. Other alumni include 33 Pulitzer Prize winners, the founders of the satirical news media company, The Onion, and the founder of Earth Day, the annual event that champions environmental protection.

One of the university's longest traditions is the 'Wisconsin Idea' – the principle that the university should enhance people's lives beyond the classroom. The Idea has been synonymous with Wisconsin for over 100 years and has become the primary ethos of the university's outreach efforts across the globe. The university's motto is 'Numen Lumen', which translates as 'God, our light'.

Rankings

In the 2017-18 QS World University Rankings, UW was ranked 55th in the world and received five excellence stars. The Times Higher Education World University Rankings 2017-2018 placed it 43rd worldwide, based primarily on surveys administered to students, faculty, and recruiters. UW-Madison's engineering program was given 14thrank by U.S. News & World report.

Estimated Academic Year Cost of Attendance

	On Campus	Off Campus
Tuition & Fees	\$36,783.24	\$36,783.24
Books & Supplies	\$1,200.00	\$1,200.00
Room	\$6,812.00	\$7,204.00
Board	\$4,302.00	\$3,910.00
Miscellaneous	\$2,294.00	\$2,294.00
Transportation	\$1,412.00	\$1,412.00
Loan Fees	\$62.00	\$62.00
Total COA	\$52,865.24	\$52,865.24

About the campus

Home to 13 colleges and schools, the university's main campus stretches over 900 acres along the southern shore of Lake Mendota. The city itself has plenty to offer students, including national landmarks and the colourful State Street and Capitol Square, lined with restaurants, coffee shops, music venues and boutiques. Madison is known as being a 'green' city, with plenty of opportunities for skiing, fishing, boating, and other outdoor sports. The newspaper USA Today ranked Madison fourth best cycling town in America for its network of biking paths and bike-share program. Its student body of 40,000 collectively represents 50 states and 124 countries. The university boasts almost 900 student organisations and its official mascot is the Bucky Badger.

Transfer Statistics

Minimum Transfer GPA: 3.00

Transfer Applications Received:

Fall: 5,167

Transfer Applications Accepted:

Fall: 2,174

Percentage Accepted:

Fall: 42%

Transfer Applicants Enrolled:

Fall: 1,323



What our folks say?

ICAS has been a roller coaster ride. From interacting with amazing people to the late night parties, it has provided me with the perfect nourishment to grow as an individual. At Manipal, I got the opportunity to be a part of financial clubs, science clubs, public speaking clubs etc., which helped me polish my personality. I am planning to transfer to UNSW due to its industrial culture and vibrant environment. If you balance your social and academic life in Manipal, no one can stop you from reaching your dream university!

Namit Jain Mechanical Engineering

Vinayak Agarwal CS Topper Coming to ICAS was more by chance rather planning. Now when I look at the two years of my life that I spent here, I feel proud of what I have accomplished and really look forward to achieving much more in the future. ICAS provided me with a great platform to achieve my dream of studying abroad and prepare me for the same. I hope that I am able to carry forward these learnings and experiences from ICAS to whichever institution I join and grow from strength to strength. I also wish all the upcoming batches, the best of luck and hard work for their future at ICAS. I would advise them to believe in themselves, work hard and make full use of the opportunities that ICAS has to offer.

It's been a memorable time here in ICAS. Manipal, as per my personal experience has been a great place to learn and explore. Moreover, I met some wonderful people from different cultures, who are now like a family to me. After my high school, I wanted to pursue Chemical Engineering. Therefore, when I heard about ICAS I knew this option would be helpful to me in saving costs and at the same time allowing me to continue my studies abroad. I plan to transfer to the University of Queensland, Australia, as it is among the top universities in the worldto pursue chemical engineering from. One advice that I would like to give to the future Chemical Engineering studentsis that the subjects will require your time, some of them more than others so study whole-heartedlyand practically.

Yuvraj Arora Chemical Engineering Topper Saheen
Computer Engineering

As a Computer Engineering student, I always knew that the US is the place I had to study in to advance as a computer engineer. After my 12th grade, I was researching about US universities and how to study there. That's when I came across ICAS. It was the perfect platform for seamlessly transferring to the US. My journey in ICAS was made amazing thanks to my friends. My partners in crime were not only fun loving and adventurous, but were also focused on what they wanted to achieve in life. We always tried to make our classes enjoyable and not boring. As my chapter in ICAS is coming to a close in another 2 months, I hope to transfer to the US with them. As of now I am yet to receive replies from most of the universities, but the ones I have my eyes on are - University of Washington, Purdue University and University of Wisconsin Madison. My advice to my juniors would be to aim for achieving a good score with what you can get into your dream university. To be honest, I never opened my books till the exams were just a couple of days away, but when I do open them up, I study really hard. If you have a good GPA, you can sit back, relax and have some fun. Find a bunch of people with whom you gel well together, study at the right time and you don't have to worry about the rest.

During high school, I always dreamt of pursuing my Bachelors abroad. Reality struck me hard across the face when I realized how much money wasgoing to be funneled. Putting my parents under such financial pressure for just my bachelor's wasn't something I wanted to do and that's when I came across ICAS. ICAS acts as the perfect, efficient and economical launch pad for students who are aspiring to study abroad at a renowned University of their choice. I'm currently pursuing my Electronics and Electrical Engineering with plans to have my credits transferred to a prestigious university of my choice in Australia. Getting admitted into a really good university obviously takes a lot dedication, focus and hard work. Securing the top rank among your peers while studying at ICAS exhibits your worth to all the foreign unis that you're applying to. As for Electronics and Electrical Engineering, the best way to secure the top rank is to attend all the classes with utter diligence, no matter what and take note of every singlething that your professor dictates or writes on the board. These notes are going to be the Gita/Bible/Quran for every student. It's hard to get up for a class at 8am in the morning without cribbing about it but attending them nonetheless will matter a lot and will turn out to be quite fruitful. Without dragging this article anymore, I'd like to conclude by stating that following these seemingly simple steps will inadvertently lead to securing place in a worthwhile university of your choice. Best wishes to all!

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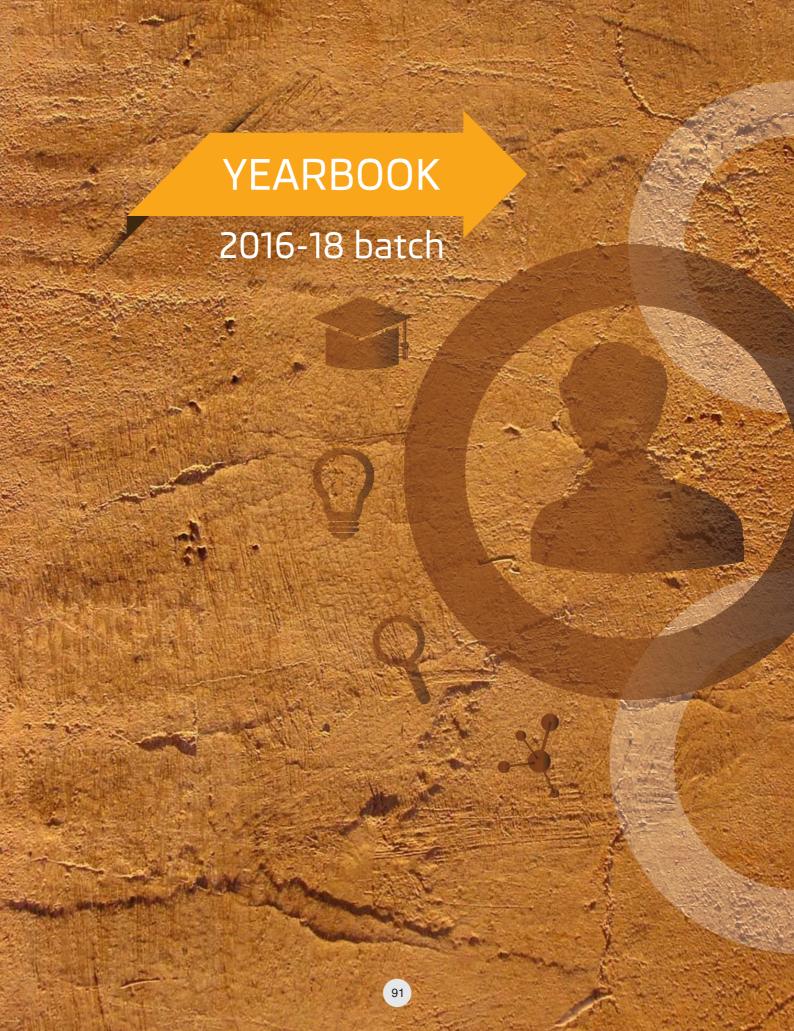
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Top 100 universities in the world for:

- -Accounting and Finance
- -Business and Management Studies
- -Computer Science and Information Systems
- -Engineering Civil and Structural Electrical and Electronic¹
- ¹ 2018 QS World University Rankings by Subject







Name: **Josna Joies** Branch: Aeronautical Name: **Asmita Bansal** Branch: Architecture



Name: **Utkarsh Agarwal** Branch: Architecture

Name : Iram

Branch: Aviation & Aerospace



Name: Jervin Jakob

Branch: Biomedical Engineering

Name: **Soumya Sharma**Branch: Biomedical Engineering





Name: Abhishek

Branch: Chemical Engineering

Name: Yuvraj Arora

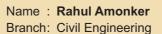
Branch: Chemical Engineering





Name: Madhav Ganapathraju

Branch: Civil Engineering





Name: **Abhimanyu Agarwal** Branch: Computer Engineering

 $Name \ : \ \textbf{Saheen Feroz}$

Branch: Computer Engineering



Name: **Aarnav Shah**Branch: Computer Science

Name: **Abhinav Pandey**Branch: Computer Science



Name: Adit Jain

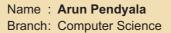
Branch: Computer Science

Name: **Akhil**Branch: Computer Science





Name: **Anishka Sharan**Branch: Computer Science





Name: **Ayush Kapoor**Branch: Computer Science

Name : Cindhuja

Branch: Computer Science





Name: **Gunjan Gupta**Branch: Computer Science

Name: **GVS Karthik**Branch: Computer Science





Name: Idris Chatriwala
Branch: Computer Science

Name : Ishika

Branch: Computer Science





Name: **Jai Srinand**Branch: Computer Science

Name: Kanishka Kapoor Branch: Computer Science



Name: **Kushal Patel**Branch: Computer Science

Name: **Manchit Nathial**Branch: Computer Science





Name: **Meet Chandra**Branch: Computer Science

Name: **Mishi Mahajan**Branch: Computer Science





Name: **Prateek Arora**Branch: Computer Science

Name: **Preetam Raj**Branch: Computer Science





Name: Rakshan BN
Branch: Computer Science

Name: Sai Krishna
Branch: Computer Science



Name: Samyak Jain
Branch: Computer Science

Name: **Sannidhya Malpani**Branch: Computer Science



Name: Saurav Chowdry
Branch: Computer Science

Name: **Sayem Ashfaq**Branch: Computer Science



Name: **Shaurya Goel**Branch: Computer Science





Name: Siddharth Kaushik Branch: Computer Science Name: **Srajan Gupta**Branch: Computer Science



Name: **Sravan Yerranagu** Branch: Computer Science

Name: **Tanmay Bagaria**Branch: Computer Science



Name: **Tanmay Negi**Branch: Computer Science

Name: **Varun Panchmal**Branch: Computer Science



Name: Vishal Polamarasetti Branch: Computer Science



Name: **Yadu Krishna**Branch: Computer Science



Name: Annie John Branch: E & C

Name: Avinash Prabhu

Branch: E & C



Name: Venkat Kunapareddy

Branch: E & C

Name: Vishal Bajaj

Branch: E & C





Name: Shubham Baheti

Branch: E & E

Name: Venkateshvaran

Branch: E & E





Name: Jayval Jayswal

Branch: Industrial Biotechnology

Name: Sri Teja

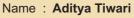
Branch: Industrial Biotechnology





Name: Aditya Chandra

Branch: Mechanical Engineering



Branch: Mechanical Engineering



Name: Akshay Bhandari Branch: Mechanical Engineering Name: Deepak

Branch: Mechanical Engineering



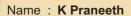
Name: Iris

Branch: Mechanical Engineering

Name: Jolly Satodiya

Branch: Mechanical Engineering





Branch: Mechanical Engineering

Name: **Karthik Agnihotri**Branch: Mechanical Engineering





Name: Mudit Agarwal

Branch: Mechanical Engineering







Name: Nevil Dobariya

Branch: Mechanical Engineering

Name: **Nirmal Dobariya**Branch: Mechanical Engineering





Name: Omkar Shinde

Branch: Mechanical Engineering

Name: Parthiva Mewawala
Branch: Mechanical Engineering





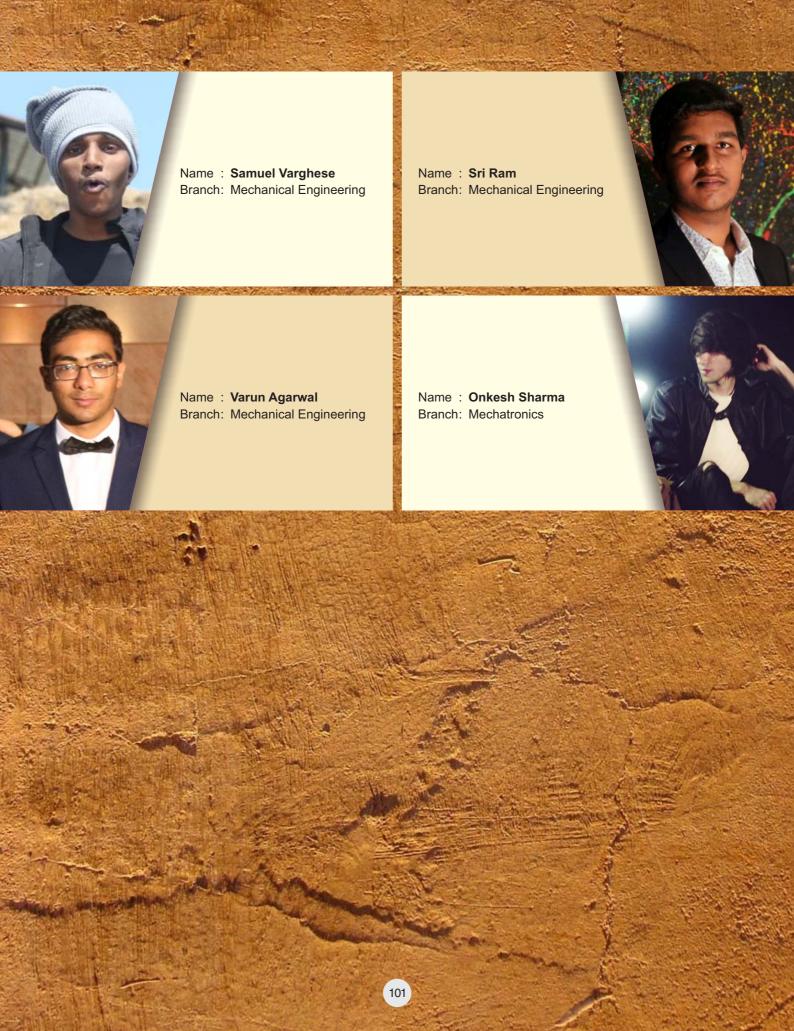
Name: Ritvick Mohan

Branch: Mechanical Engineering

Name: Rohan Verma

Branch: Mechanical Engineering





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- BEng (Hons) Electrical & Mechanical Engineering
- BEng (Hons) Mechanical Engineering



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(Times Higher Education)

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Key contact details

Anjana Singh

International Recruitment Advisor (In-country contact) anjana.singh@strath.ac.uk

Robert Graham

Faculty Officer (International) robert.graham@strath.ac.uk

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Class 2017-18



Junior Section A



Junior Section B



Junior Section C



Senior Section A



Senior Section B



Senior Section C



Editorial Board



Cultural Board



Sports Board



Council Heads & CRs



Student Council



2017-18 Batch

ICAS Family



Sitting from left to right: Mr. Dasharathraj KShetty, Mr. V. Naragaj, Dr. Sesappa A Rai, Dr. S.R. Girish, Dr. Radhakrishna S. Aithal, Dr. Ganesha A, Dr. Thukaram m, Dr. K. S. Aithal Standing from left to right: Mrs. Vijayalakshmi Rao, Mrs. Geetharani, Mrs. Reshma, Mrs. Jyothi, Mrs. Arti Pawar, Dr. Deepa Prabhu, Mrs. Malathi Aithal, Mrs. Manjula M Nayak, Mrs. Vedavathi Kamath, Mrs. Rashmi Shenoy, Mr. Lakshminarayana Nayak, Mr. Mahalinga Poojary

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GLOBAL RANKINGS











ICAS Alumna entered Guinness World Records



Ms. MalavikaVasishtaBagepalli, an illustrious alumna of International Center of Applied Sciences (ICAS), Manipal University (B.S. Mechanical Engineering Batch 2010-12) has done a life time achievement by entering Guinness World Records through her research outcome!

Malavika and her research group at Georgia Institute of Technology, Atlanta, USA, the world's 71st ranked (QS World University Rankings 2017) university, have set a new world record recently,by designing a ceramic-based mechanical pump capable of containing & circulating liquid tin at a temperature range between 1,200 °C and 1,400 °C tested for over 72 hours.

She was a top performing student at ICAS (with a CGPA of 3.29 out of 4) and got transferred to prestigious Ohio State University, USAunder the Twinning Engineering Program and later joined Georgia Institute of Technology, USA as Research Assistant. She is the daughter of Mr. B N Mohan, a businessman and Mrs. Malathi Mohan from Hyderabad.

The whole ICAS family heartily congratulate Ms. Malavika for her glorious accomplishment and for bringing laurels to ICAS and Manipal University!





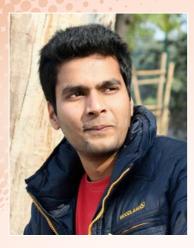
ICAS was one of the most interesting experiences of my life, and will be one of yours too. Looking back, I realize it was the simple things and experiences at Manipal that have shaped my career. We learnt to grow and thrive, both academically and socially. Apart from being a great stepping stone to a world of opportunities, it was also an awesome institution for overall personal development - something that plays a key role in one's career. All in all, an institution that promotes how to think analytically, becoming global citizens and discovering limitless possibilities. So here's to the simpler days: hostel life, independence, all nighters, egg maggi at night canteen, awesome-awesome mess food, making it to class on time, bugging teachers with questions, questioning all your effort in the end, and most importantly - making friends for life. Enjoy learning, try to relate coursework to real life problems, question teachers, never miss deadlines, (try to) work hard, and play harder.

Arjun Vir Rajpurohit

ICAS: Electronic and Electrical Engineering, Class of 2010

Undergraduate Degree: Univ. of Michigan Postgraduate Degree: Univ. of Michigan

Current Position: Engineer Staff-I IC Design, Broadcomm, San Francisco



ICAS: Been there done that, Now what?

Transitioning into a new environment can be easy for some and difficult for others. It all depends on the inherent character of people; however when it comes to adjusting abroad especially in outward

and forward thinking countries like the United States, boldness of character, mature thinking and an extrovert attitude assumes a great importance.

During my years at ICAS I tried to prepare myself in the best possible manner to get into one my dream schools. My experience was all about staying organized, participating in extra-curriculars and learning extra practical stuff in electronics while keeping up with the academic rigour. All these things helped me in a great deal to develop my personality and intellect in a great deal. When I finally left for US, I was pretty confident about being able to adjust well; however a slight tinge of nervousness would often try to diminish this by reminding me of the several uncertainties.

After arriving at the University of Illinois campus I realized that as an international student I was no longer under the protective cocoon of my parents. I was accountable for everything I did. My parents couldn't simply dial in numbers and fix everything in case things went wrong. I had to be very careful in all my endeavours.

Now that I've spent a year at University of Illinois at Urbana-Champaign I would like to share my experience so far and hope that it benefits all the budding ICASians.

The Initial Days

I spent almost all of my first few days attending various information sessions to know about rules and regulations, exploring the campus buildings, nearby

grocery centres and Walmart for availability of basic necessities and understanding bus schedules. Having a fair idea of bus schedule helps a lot because buses are the cheapest and easily available means of transport. Apart from this I also attended social gatherings organized especially for international students. If you are someone living in an apartment you may not get to interact with a lot of people. So attending such gatherings great way to make friends.

Orientation and course selection

I initially thought that there would be just one day orientation programme where in I would have to listen to the tiring lectures. But here the orientation programme wasn't a one day thing. There was one main orientation intended for all types of new admits and then there were department specific sessions intended for transfer students. I also found a few orientation session organized by the International Students and Scholar Services during the first month. These sessions provided a lot of valuable information on academic integrity, housing, adding or dropping classes in a semester and so on. As an international student one shouldn't give these sessions a miss. Apart from all this general stuff I would recommend taking the academic integrity part very seriously here because the consequences of getting caught can be really bad for a student. It can vary from anything between getting an F on the course to a deportation in serious cases.

As for the course selection, things worked out a little differently here. Unlike the fixed course pattern at ICAS, the course pattern at US colleges is chosen by the students. They are supposed to come up with the interesting elective upon consultation with the advisors and then try to fit the electives and compulsory courses into their schedule. This process can be very mind boggling at times therefore one is required to do a little bit of research by reading about the courses on the collegewebsite.

Classes and midterm (sessionals)

The teaching methodologies varies from university to university. At University of Illinois Urbana-Champaign each course usually has a lecture and one discussion session. For lab based courses it's the same lab / lecture pattern. We all know what happens in lectures so I wouldn't waste my words on it. In discussions the students and Teaching Assistants discuss several problems and clear doubts. To supplement things covered in class and further build on the concepts weekly assignments are given whose grades count towards the final grades. Hence these are to be taken seriously. Plagiarism is strictly dealt with here.

So I wouldn't recommend any smarty-pants job. The graders here use sophisticated software that gives out a percentage match between any two assignments (both paper and online submissions). As far as the midterms are concerned there are usually two or three depending on the course. There's no make-up thing here so one has to be fairly regular with his/her studies and do well in every test. However there's one thing to notice that the final grade is kind of statistically distributed. So the absolute marks do not determine the grade or in other words, merit is relative.

Internships

Securing an internship in the US is highly competitive and a bit difficult for international/transfer students especially for the ones who are looking for non-coding jobs. From international student's perspective the companies can be categorised into two groups those that sponsor international students at bachelor's level and those that don't. Those that do not sponsor international students will simply refuse to take us in because of their policies with regard to alien workers' status. So the options are kind of narrowed down. As for the companies that sponsor us, they look into several factors like completion of required coursework, previous technical experiences and so on. Thus I would highly suggest all my ICAS juniors to learn a lot of extra technical stuff in their field of work and gain an internship experience before going abroad.

Chilling out

Well, many of you might have gotten serious about life by now so I thought I'd have this section for the end (haha). Anyway it's really important to chill out! There is something for everyone. If you're someone who wants to hit the beach and surf then no problem! Take a trip to Miami or California during spring break (yeah an extra week of break in the middle of spring semester) and you're done. For party freaks there is a party every weekend in various clubs around the campus and is a levelled up version of the Manipal party scene. Many famous Djs also perform in clubs around the campus. If you're lucky Hardwell, Afrojack and others in that league might perform in your campus. However one must be very careful while partying because the policemen here aren't our police annas.

So whatever you do it is very important to balance everything out and believing in work hard, play hard policy. Your parents are spending shit ton of money on superior education and life so you better make sure that every penny spent is worth all of it.

Wish you all the very best!

Ashwarya Rajwardan

ICAS: Electrical and Communication Engineering, Class of 2014

Undergraduate Degree: University of Illinois at Urbana-Champaign

The Journey of us

Once upon a time, there were hundreds of different roads that diverged into some woods. The exquisiteness of the roads was, that hundreds of naïve travelers who treaded on those roads knew where they were headed but didn't know where they were going.

I am one of those travelers/education seekers just like you, with a bag pack of dreams of the best education and the best experience. I travelled into the same woods too, where I was free to jump around, explore, to test my strengths, see my weaknesses and make mistakes. Also, everything was made surreal because of the company of the fellow travelers who later became my non-biological families. I never knew before ICAS that away from home, people from completely different walks of life and no former connections could feel so homogeneous. That place had a unique charm.

ICAS was a wonderful place for me in many respects. It gave me the taste of the real world, strength to cross any hurdle and a sense of judgment. Honestly, I didn't realize how much I had grown up until I left that place where every rain was a different joy and every sessional, a different pain. What I find bizarre is that though I loathed the academic system yet I wanted to stay there. I am confident that we can relate on this.

From the "woods", which prepared me for the "concrete", I began my journey to the University of Minnesota. My first week, or the first semester went trying to commensurate my previous experience with the ongoing experience. We all are in that pool for some time. I realized, yet again, that I had grown up. The fear of transition from ICAS to here was a miniature version of the fear of leaving home for ICAS.I knew by now, what transition felt like. The diversity, the language and the culture were easy to adjust to, but the new challenge was to adjust to the academic system. . This situation was paradoxical to the one I faced in ICAS. The leap from last minute preparation to year round comprehensive evaluation was difficult, and to be real, I am still working on that. But we all learn with the time, so will I.

The academics here are rigorous (and yes! I remember calling academics in ICAS rigorous too. But this time, I mean it!). You work on yourself on your own. As I said, we learn with time and everything is worth it. The challenges are worth it, for again, it's a road less travelled. You are exposed to multitude of resources to

learn and grow in every possible way and the outcome will always depend on how you choose to use those resources. For every challenge, you have a resource in the form of an adviser, consultant, peer mentor or senior and other online help. Use all that wisely (with Albus Dumbledore's expression)!

The trouble of getting a social security number prior to starting any on-campus job(if you are willing), will make you nostalgic for the infinite number of rounds you made to Laxmi sir's office during the applications (sigh).But as I said, ICAS prepares you for stuff like that (at



least!). I have learnt that living on campus is always a better option for the first year in states at as it helps you adjust more easily but it is usually expensive then off campus accommodation which is a reason why it is usually discouraged. Overall, the transition is going to be beautiful with another journey and another milestone. But this time, the travelers will be the same and different at the same time. They will be mature, with a bag pack of bigger dreams and aspirations.

My heartiest congratulations to those who have made it through these two long beautiful years and a very good luck to those who are about to reach the finishing line. We all have our own successes and our own failures and that's what make us who we are. I am thankful to the editorial board of ICAS for giving me the privilege to speak to my juniors through this article. This batch has always shown an unwavering enthusiasm in every occasion (starting from the freshers, Of course!) and I wish you all the very best for your future endeavors. Set your sails guys! As Paulo Coelho said "a boat is safe in the harbor, but that's not the purpose of a boat".

Hitisha Sharma

ICAS: Computer Engineering, Class of 2014
Undergraduate Degree: University of Minnesota



Like all of you, I started my journey in ICAS (suffice to say it was a decade ago). As a Biomedical Engineer, I was always interested in working on helping the healthcare market in India and other emerging markets. My experience at ICAS was amazing. I have yet to make it back to Manipal since I finished my two years, but I would love to come back very soon. When I was at ICAS I received offers from numerous universities but chose the one that I thought was the most out there. I transferred over to The University of Utah to complete my bachelors in bioengineering. I remember a few raised eyebrows asking me 'Where is Utah?', 'Why didn't you choose a better ranked University?'. When I look back today, I believe I made the best decision ever. I chose Utah because I wanted to go to a University that nobody from ICAS had gone to before, I wanted to explore something new. I believe that is something you should all think about when making your decisions. College is all about taking chances, its not all about US News university rankings (especially when you are completing your undergrad). I had an absolutely amazing time and at the same time had a fantastic education. It also opened new doors for Biomed students from ICAS because in the following years we had more students transfer over and all of them today are working in good jobs in the industry they love. I went on to pursue my Masters in BME from Cornell University and then returned to India to fulfill my ambitions to work on improving the medical device

industry in India. Today, I am a co-founder and CTO of Lattice Innovations Pvt Ltd. Lattice Innovations is a medical device R&D company based out of Kolkata and New Delhi, and we are working on some very interesting technologies to help make healthcare more accessible and affordable across the country. My passion outside of work is to harbor innovative communities. I am a co-founder of the Delhi Makers community and also the chief organizer of India's largest medical device hackathon community called Jugaad-a-thon. I absolutely love my job and every day brings with it a new challenge and something new to learn from. If you are interested in anything I am doing feel free to connect with me and I would be happy to help out in whatever way I can. I wish you all the very best of luck in your future pursuits.

Sahil Mehta

ICAS: Biomedical Engineering, Class of 2007 Undergraduate Degree: University of Utah Postgraduate Degree: Cornell University

Current Positon: CEO, Co-Founder Lattice Industries

It's such an honor for me that my college would consider me worthy of this advice to the current students at ICAS. I hope you all know what a wonderful place you are in right now. You, as students, have access to some incredible opportunities. I spent two of my very memorable and formative years here in Manipal, as the first two years of college always are. I went to class as the only girl with about fifty boys, at least half of whom would look to me for a pen to write with. I performed in the annual functions, I cried after a bad internal exam, I drove my first motorbike, I practically lived in Cosmo Café, CCD and Dollops after classes, and I developed amazing friendships with very successful people who still keep in touch with each other. As an ICAS student, I think I spent most of my time here thinking about change. The move from school to college itself is, of course, a big change for everybody, but then there's the additional everimpending thought of where I'd find myself two years down the line, when it was time to transfer. We come to ICAS with the conscious knowledge that our time here is temporary, and only one part of our total college experience. While changes are inevitable, they are also welcome. But you will never replace your memories here with the new life that lies ahead of you. Instead do know that ICAS is,



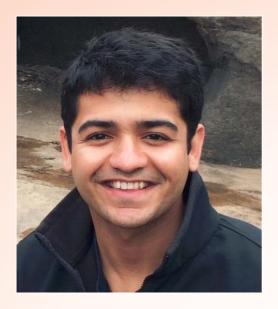
forever, a part of who you are and will be, years from today, like it has been for me. Make the best of it.

Shreyasi Mukerji

ICAS:Mechanical Engineering,, Class of 2007 Undergraduate Degree: North Carolina State Postgraduate Degree: Cornell University

Research at IIT Kanpur

Current Position: CAE structural engineer at GE Appliances



Do not let your mind defeat you. Often, the greatest barriers to our dreams are the ones we put up ourselves. If you catch yourself thinking "it's too hard", "I'm not smart enough" or "Will they like me?", stop and remind yourself that the greatest regrets people have are about the things they never tried, not the things they failed at. Learn to love yourself and build self-esteem. If you don't hold yourself in high regard, you will not be able build respect for people around you. When you respect people around you, irrespective of what they do, what they know or how much money they make, you open yourself to learning from them. Learning continuously is one of the best ways you can spend your life. Above all, be humble. Nothing destroys relationships and careers faster than an unchecked ego. Humility needs to be cultivated and practiced often - help a friend who is struggling or do something nice for your classmates without asking for anything in return. At the end of the day, what will matter most is

the strength of your relationships with the people around you. Lastly, be attentive. You will be embarking on a new journey in a new country and culture. Pay attention to how your actions affect people and how you are perceived by people. Try to do new things and make new friends. It may feel easier to stick with old friends and what you know already, but that would be a waste of the opportunity you and your parents have worked so hard for. Use the next two years to challenge yourself, learn new ways to think and also refine your values. I wish you all the very best.

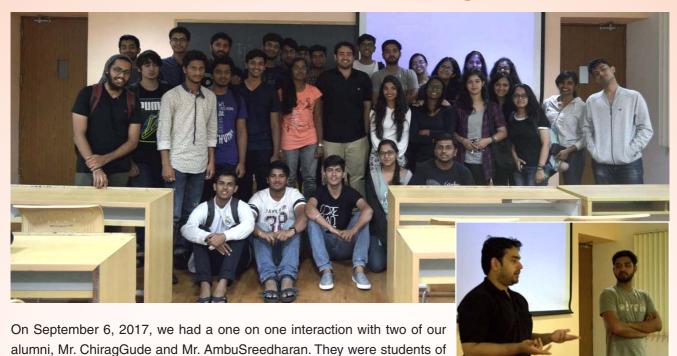
Hope that's helpful. Thanks for the opportunity to let me contribute. Best of luck.

Vipul Chhajer

ICAS: Mechanical Engineering, Class of 2008 Undergrad Degree: University of Michigan

Postgraduate Degree: Harvard Business School (MBA)

ALUMNI INTERACTION: Chirag & Ambu



ventures. ChiragGude was of the E&C branch, and AmbuSreedharan was of the CSE branch, and they joined the course with dreams and aspirations of going abroad to a good college. And their dreams did come true when after 2 years, ChiragGude went to Lancaster University, UK, while AmbuSreedharan went to South Dakota State University, US.

ICAS back in 2007, and since then, they've gone to strive towards great

They gave us several amazing tips and pieces of advice to help us, and reached out to everyone who met them that day to answer all their questions. Along with a brief explanation about what their current endeavors are, they shared some of their ICAS experiences, from choosing suitable universities to exploring various locations in and around Manipal.

There were several questions addressed pertaining to our applications, such as those about credit transfer and extracurricular activities. They also gave some important suggestions for prospective E&C and CSE students. There were even questions regarding life after college, and how we can accordingly plan a secure future for ourselves, while improvising on what we have already decided beforehand.



An interview was conducted by the Editorial Board in which, along with the topics covered during the open discussion, they elaborated more on the transfer prerequisites and what one can typically come across during their first time studying abroad, and how these two can vary country to country. Overall, the entire span of the meeting was very meaningful and broadened our perspectives of everything ICAS can offer.

Here are some of the questions which were asked, and their answers:

- 1. In the United Kingdom, there's an integrated degree program called MEng, which some of ICAS's partner universities pointed out they had. Would you recommend it?
- A: We would recommend it, especially for ICAS students who want to become chartered engineers in the UK, as it is a mandatory prerequisite for them. In fact, it is one of the most common undergraduate Masters degrees which is done there. It's an excellent path for those who are passionate about what they do as engineers and want to start training early as possible.
- 2. Why is it that most of the students would rather go to the US rather than the UK?
- A: To be frank, now there's a balance which has come about. You see, times have changed. Within the span of ten years, there has been a lot of exceptional developments in the "tech scene" of Europe, Australia, Canada, etc. Back when we were in ICAS, US was the most gone-after country, because it was known, at the time, that it had the largest tech industry in the world. Even though the United States has retained its global reputation as a world leader in technology, many other countries have been able to quickly catch up to that level on a long-scale, one of those countries being the United Kingdom.
- 3. Essentially, we'll be applying as international transfers to universities. Over the course of ten years, do you guys feel like it's become harder and harder to get accepted as international transfers?
- A: From a statistical perspective, we can't exactly confirm or deny anything, because we don't have the current data. However, if there's one thing that hasn't changed from 2007 to 2017, it's the appreciation level universities abroad have for diversity in their student bodies. They always promote diversity in their university, because it shows that they welcome students from all around the face of the globe as representatives of their university. Because you are applying from India, the universities you apply to would consider it as a chance to further raise the level of diversity.

- 4. Which extracurriculars would you recommend we do?
- A: We can't exactly give you a list of extracurriculars to participate in. That is totally relative to the student. There's no set of extracurricular or co-curricular activities which are compulsory for you to do. If there's anything you're good at, do your best in that field, such that it's easier for you to receive a form of accreditation, which you can show as solid evidence when you mention it in your applications. Try to do some projects and/or extracurriculars which pertain to the field you are a part of. Don't get yourselves caught up in a frenzy of too many extracurricular activities, because you won't be able to balance the time given to them and the time allocated to your academics. Universities want to see consistency, so even if it's one club or activity, if you have been putting in your best and consistently showing progress, every chance you get in that field, that would-be a plus point. Just remember to plan well in advance
- 5. Are we expected to get an extremely high GPA to even consider applying to universities?
- A: Definitely not! To be honest, we weren't the class toppers at all. We were just two normal guys who were studying in ICAS, just like everyone else in our batch. We're not asking you to fail, but try your best to keep a consistently fair GPA rather than a GPA which continuously changes by a long range, examination after examination. It would also be great if your GPA gradually increases through the course of two years, so it lets the universities know you're someone who's always trying to analyze accordingly and improve. The universities you apply to look at your GPA first, and they want to see consistency and stability in your scores, so it is important to give the firsthand priority to your academic performance.
- 6. After obtaining our degrees abroad, how can we ensure getting a good job?
- A: Just like how you took the opportunity to showcase your potential in ICAS, you should continue to do so once you go abroad, and you'll get many

opportunities, so that's not an issue. You can try for internships, or even get a paper published, during your 3rd and 4th year abroad. The location of your university also plays a big role in getting a good job. If you're attending a good university, but it's in a mediocre locality which is not very technologically developed, it may be slightly harder for you to reach out to companies and vice versa. However, if you're an average student studying in an average university, but it's located in a major "tech city", it would boost your chances.

- 7. Is it difficult to cope with the differences in student life and the atmosphere when we study abroad?
- A: It's not as hard as it might seem to be. As we mentioned before, these universities are very welcoming to diversity in their student body, and you're a part of that. It might be a little surreal at first, but once you get into the system of that university, it's easier to adapt to it. The students who got into those universities as freshman may have already formed tight friend circles, so it will be a little difficult to fit in at first. Just remember to keep an open and optimistic mindset about it all. Once you adapt to the environment in the university, you'll naturally start to gel well with students. Once you have got a good grip on your communication skills, you'll be able to fit in easily. Overall, this entire process doesn't take very long. Again, it's all about you keeping an open mind. As for the classes you attend, just make sure to meet your professors in those universities and tell them about the curriculum you followed in ICAS, so that the professors will have a good idea and can help you out.

Manipal University has quite the diverse student body. So, try to make the most of it while you're in Manipal, so that you can get a good grip on your communication skills once you go abroad.

- 8. There have recently been many concerns pertaining to receiving visas. Do you think it's a big issue, and will it have an impact on us?
- A: It's not that big of an issue, to be frank. When we applied, we didn't face issues regarding our visas. Even today, it's not that much of a problem. If you complete the visa process diligently and on time, you shouldn't face any obstacles. The visa process will not have any implication on your college applications; in fact, the visa process starts after you get the acceptance letters. When you're applying, colleges will not consider whether you have a valid visa at that point of time. If you take the initiative to reach out to your universities and contact them beforehand, they will try their best to help you out.
- 9. How can we ensure that most of our credits get transferred to the university we finally decide on attending? Can we attend any sessions during our holidays to cover up for the low credits we might have?
- A: Remember to get your research done in advance! Almost all the universities abroad have their own websites, in which they have a separate page for prospective transfer students. Take the initiative to thoroughly look over these pages for the universities you're keen on attending. Every major has certain prerequisites you should have completed prior to your transfer, so be sure to note down these prerequisites, and accordingly, see how it compares to the course you're following in ICAS. To ensure maximum credit transfer, just make sure that most of the courses and syllabus you follow in ICAS comply with the prerequisite courses required to transfer to that major of that university. Therefore, it easier to transfer to the partner universities of ICAS. On top of that, the partner universities offer you a good deal of financial aid, so that is something to shed light on.

If you want to get more credits, you can try attending summer school, but that would be best done after completion of your first year in ICAS. However, any projects you might do during this time will not be of any help in gaining credits, although they could be a great addition to your application.

In the Journey towards Excellence:

Tirthak Saha, an ICAS Alumnus



Mr. TirthakSaha, an illustrious alumnus of International Center of Applied Sciences (ICAS), Manipal University (B.S. in Electrical & Electronics Engineering, Batch 2011-13) has been awarded a spot on the prestigious 2018 Forbes #30Under30 global list in the Energy category! The research team led by Tirthak (Consumer Resiliency Team) has recently won second prize in American Electric Power's (AEP) Spark Tank Innovation Challenge held across AEP's 11 state territory in USA.

About the Prize winning Project, "Aggregated Network of Energy Storage":

The aim of this project is to create a Virtual Power Plant like linked network of behind-the-meter energy storage units in order to realize benefits of energy aggregation such as Frequency Regulation, Capacity Management, Peak Shaving, Capital Deferral, and

vastly increased 'blue-sky' reliability for customers and overall reliability metrics for the company such as SAIDI, SAIFI, etc. The work revolves around modernizing the Electric Grid in the American Mid-West and finding innovative paths towards reliable electric power delivery to millions of customers, high levels of energy efficiency in our systems, and a fossil fuel independent future for our world. It also focusses on researching and implementing Smart-Grid initiatives like self-healing Distribution Automation, intelligent Line Sensor applications, Energy Storage and Volt-Var Optimization across the states of Indiana and Michigan. The project was declared 2nd place winner out of 600 submissions in American Electric Power's first ever Spark Tank Innovation Challenge. It will now be deployed across AEP's 11 state territory in the coming years.

Interaction with Aniruddha Ray

Queen Mary University of London, ICAS Mechanical Engineering 2013-2015

- Q: What were a few of the changes you experienced after transferring to QMUL, coming from ICAS?
- A: The first thing I experienced after coming to QMUL was that it's much more relaxed, as compared to the rigorous course of ICAS. At the time, in ICAS, we would have around 32-36 hours of classes a week, and most of those hours were spent in developing a strong core in theoretical concepts. In Queenmary, we only have around 21-22 hours of classes a week. We are highly encouraged to spend a high amount of those hours in group projects, aiding in business planning, and working on real-life problems faced by a company and assess accordingly based on the same. We get a lot of free time, with which we can also get into part-time jobs.
- Q: So how does it feel to be back in Manipal after all this while?
- A: It's great to be back! I've seen that many changes have occurred in 2 years, not just in ICAS, but in the place Manipal itself. Manipal as a city has developed a lot, such that it's a much more student-friendly location.
- Q: What are the changes you have found in ICAS currently, compared to the way it was when you were a student?
- A: In ICAS, I mainly saw the difference in the course itself.

 A lot of modifications have been made to the course, such that you get a more hands-on experience when learning your theoretical concepts through lab. Also, stream-wise, a lot of unnecessary subjects that we had have been removed, which is a great help for the current students.
- Q: What advice would you give to students if they're considering QMUL?
- A: Go for it. London's an amazing city to live in. London is a very multicultural place, with a lot of Indians. However, looking at it from a financial viewpoint, London is expensive. But in QMUL, looking at the bigger picture, like the housing, the food, etc., it's very reasonable for two years as compared to many other universities in Australia, the US, etc.
- **Q:** Is it easy to adapt to the culture and the academic system followed there?
- A: Definitely. It's very easy to cope up once you go to QMUL directly from ICAS, since they are partner universities. You get a lot of revision classes in your first semester there. Also, QMUL has an extremely diverse population, with students from over 130 countries coming to study there.



- **Q:** What opportunities will one get the chance to take in QMUL, to help them?
- A: Our university holds a lot of workshops throughout the year, in which big companies like Mercedez come and you get to interact with the senior managers there, in order to help yourself out for future placement. It's very important to be serious about job placements while you're in QMUL. Also, QMUL has a long history of tradition, developed to provide education to the poor, and so QMUL gives utmost priority to the students. As of now, in the rankings in the UK, it holds in the top 24 for international character and promoting diversity, as 51% of our students are foreign.
- Q: How can we make the best of our 2 years of ICAS?
- A: Be very serious till your third semester, especially about your GPA, as our admission officers give utmost priority to GPA. Extra projects that you might involve yourself in pertaining to your stream would be great, but focus on your GPA. Your average needs to be 3.0 GPA, and you need your academic reference signed by professors. You don't need to worry about your credits, as most of your credits would be transferred anyway. Be sure not to take any backlogs.
- Q: What should students be keen on experiencing once they go to QMUL?
- A: Well, for one, you get much more time to yourself and to relax, but that should not become a permanent ideal for you. You get separate classes only for solving numerical problems. Also, your assignments are set properly such that they would help excessively in your exams.

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