Fr. Conceicao Rodrigues Institute of Technology

ZEPHYR

BY DEPARTMENT OF COMPUTER ENGINEERING

INDEX

FROM THE HEAD OF THE DEPARTMENT

Dr. Lata Ragha
Head of the Department,
Computer Engineering

Creativity is the crucial variable in turning knowledge into value.

In this regard, the Department magazine offers an ideal forum for students to think, reflect, create and innovate in a multitude of languages.

The magazine is an excellent platform for the budding engineers to bring out their latent abilities and is indeed a precious document that preserves their invaluable piece of work. It is a significant milestone in their creative journeys and inspires them to aspire higher.

The 2019-2020 edition of Zephyr helps to showcase the activities that are happening in the department. It provides an avenue to showcase the merits and academic achievements of the students.In addition to the numerous achievements of the department, this is yet another milestone in the co-curricular activities.

I hope this magazine aims to inspire and nurture upcoming engineers to bring a revolution in this ever-evolving world of technology.

It captures the zeitgeist of the current technological advancements and provides the platform to our students for exhibiting their true talent and creativity through various genres of writings. It also helps in building up teamwork which is very much needed today in the world of competition.

I congratulate and thank all the students and staff coordinators who have made untiring efforts to bring out this magazine. Reading this magazine would definitely be an inspiration and motivation for all students and staff to contribute even more to the forthcoming issues. I hope that everyone would continue to give their full efforts to keep the momentum and continue to enhance the standards of the magazine.

DEPARTMENT DETAILS

DEPARTMENT DETAILS

The four-year Computer Engineering Degree Course was started in the year 1994 and it was accredited for three years from 2006, reaccredited for two years w.e.f 2012 and, reaccredited again for two years w.e.f 2019. B.E Computer engineering course introduces the student to the world of programming starting with the basics and slowly leading towards the high-end programming technologies along with basic, core and specialized (electives) subjects during the duration of four years.

The Computer Engineering Department has domain specific, well equipped labs with Desktops having latest specifications and software.

Besides this, Computer Department Association – ACESS (Agnel Computer Engineering Students Symposium) plays a major role in conducting various workshops and Short term Training courses on Machine Learning, Storage Area Network (SAN), Web Designing, Open Source Technologies, Python, Robotics, Advanced Mobile Technology, Data Science etc. to keep the students at par with the requirements of the industry and to make them successful professionals. The collaboration of the department with industries like EC-Council, Myra Technologies has helped in conducting training programs in the field of Security, Machine Learning which also gives exposure to students about latest technologies and tools used in the industry. Apart from this, students are also encouraged to become members of professional societies like CSI, IEEE etc., to enroll for various internship programs and to develop their programming skills thru Programmer's Club.

Department has well qualified faculty members who are specialized in various areas. Students implement real time projects which are mostly research oriented guided by faculty in the final year as part of their curriculum which trains them to be highly competent computer software professionals needed by industry. As part of final year projects, various groups have undertaken projects from reputed industries and research centres like Persistent, Reliance, BARC and TIFR. TIFR projects taken up by the department have been successfully completed and deployed at the Research Institute. These projects have also received good appreciation. During the curriculum, the department provides a platform for students to present/publish technical papers in National and International Conferences and Journals.

For further details Visit us@
https://fcrit.ac.in/academics/under-graduate/computer

DEPARTMENT VISION & MISSION

Vision:

To contribute significantly towards industry and research oriented technical education leading to self-sustainable professionals and responsible citizens.

Mission:

1. To provide quality and application oriented education to meet the industry requirements.
2. To prepare technically competent, ethically and socially committed professionals with good leadership qualities.
3. To facilitate an opportunity to interact with prominent institutes, alumni and industries to understand the emerging trends in computer technology.

PROGRAM EDUCATIONAL OBJECTIVES

Graduates will be able to:

1. Excel in professional career and higher education in the thrust area of Computer Engineering.
2. Develop software products by adapting the trends in technology to solve real life problems.
3. Exhibit ethical practices, professional conduct and leadership qualities.

PROGRAM SPECIFIC OUTCOMES

At the end of the Bachelor of Computer Engineering Program, graduates will be to :

PSO1 - To comprehend, analyze and develop solutions in the areas of Web Technologies, Data Science, Networking and System Security.

PSO2 - To inculcate self-learning and research attitude for excelling in Software Development.

Program Outcomes (PO's)

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7.Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

FACULTY DETAILS

FACULTY

Dr. Lata Ragha

B.E., M.Tech, Ph.D

Professor & HOD

Mrs. M. Kiruthika

B.E., M.E, Ph.D(Pursuing)

Associate Professor

Mr. Amroz Siddiqui

B.Sc.(Tech), M.Tech

Assistant Professor

Mrs. Smita Dange

B.Tech., M.Tech, Ph.D.(Pursuing)

Assistant Professor

Mrs. Shweta Tripathi

B.E., M.Tech

Assistant Professor

Mrs. Rakhi Kalantri

B.E., M.E

Assistant Professor

Mrs. Sandhya Pati

B.Tech., M.E

Assistant Professor

Mrs. Shagufta Rajguru

B.E., M.E.

Assistant Professor

Mrs. Dakshayani G

B.E., M.E.

Assistant Professor

Mrs. Kavita Shelke

B.E., M.E.

Assistant Professor

Mr. Mritunjay Ojha

B.E., M.E.

Assistant Professor

Mr. Rahul Jadhav

B.E., M.E.

Assistant Professor

DEVELOPEMENT OF NEED BASED PROJECTS

Sr. No.	Title of the Project	Objective	Developer Team
1	Minor Research Grant	To automate the process of Minor Research Grant of University of Mumbai	Mrs. Kavita Sheike (Asst. Prof.) Mr. Shreyas Lokhedwar Ms. Sanjana Pradhan Ms. Soumya Haldar
2	Placement Portal	To facilitate and document Placement process	Mrs. Kavita Sheike (Asst. Prof.) Mr. Rajshankar Khatke Mr. Aniketh Gaikwad
3	Institute Website	To provide insight information about the institute	Mr. Mrityunjay Ojha (Asst. Prof.) Ms. Tanvi Rajadhyaksha Mr. Swapnil Shinde Mr. Yadant Padnekar
4	Academic Performance Monitoring System and Student Portal	To facilitate the monitoring of Outcome Based Academic activities	Mrs. Kavita Sheike (Asst. Prof.)
5	e-Conf: A Conference Management Tool	To ease the organization of the conference	Mrs. Smita Dange (Asst. Prof.) Mr. Nithin Varghese Ms. Sinimol Baby Ms. Darshana Chaudhari Ms. Alvina Malpan
6	Stipend Approval System	To automate the process of stipend approval	Mrs. Smita Dange (Asst. Prof.) Mr. Jude D'silva
7	Exam Cell System	To facilitate and manage the Examination process	Mrs. Kavita Sheike (Asst. Prof.) Mr. Tushar Masone
8	Students Registration And Payment System	To facilitate and manage Inter-Collegiate Fest	Mr. Rahul Jadhav (Asst. Prof.) Ms. Jasmin George Ms. Vanessa Almeida Mr. Jude D'silva

CONFERENCE PUBLICATIONS

Sr No.	Name of the Faculty	Title of the paper	Details of Publication	Indexing
		2019-20		
1	Dr Lata Ragha	Image Compression Using Generative Adversarial Networks	IEEE Global Conference for Advancement in Technology, NCET, Bangalore, 18th – 20th, October 2019	IEEE Xplore
2	Smita D.	IoT Botnet The largest attack on IoT Network	International Conference on Computing, Power and Communication Technologies will be published as a book chapter in Data Communication and Networks Proceedings of GUCON 2019, e-book ISBN 978-981-15-0132-8,2019	Springer
3	Mr.Rahil K.	Swarm Robotics in Disaster Management	IEEE International Conference on Innovative Sustainable Computational Technologies (CISCT-2019) on October 11-12, 2019 at Graphic Era Deemed University, Dehradun, Uttarakhand, India. IEEE Conference Record No. 46403	IEEE Xplore
		Inter AR: Interior Decor App using Augmented Reality Technology	5th International Conference on Cyber Security & Privacy (ICCS) 29th -30th Nov-2019 at NIT Kurukshetra , ISBN: 1558 xxxx	Elsevier-SSRN
		M-Lens: An IOT Based Deep Learning Device	First International Conference on Advanced Communication & Computational Technology (ICACCT - 2019) 6th -7th December 2019, NIT KURUKSHETRA, India	Springer
4	Mr. Shagufta B.	Swarm Robotics in Disaster Management	IEEE International Conference on Innovative Sustainable Computational Technologies (CISCT-2019) on October 11-12, 2019 at Graphic Era Deemed University, Dehradun, Uttarakhand, India. IEEE Conference Record No. 46403	IEEE Xplore
		Inter AR: Interior Decor App using Augmented Reality Technology	5th International Conference on Cyber Security & Privacy (ICCS) 29th -30th Nov-2019 at NIT Kurukshetra , ISBN: 1558 xxxx	Elsevier-SSRN
		M-Lens: An IOT Based Deep Learning Device	First International Conference on Advanced Communication & Computational Technology (ICACCT - 2019) 6th -7th December 2019, NIT KURUKSHETRA, India	Springer

UNIVERSITY MINOR RESEARCH GRANTS

Sr. No.	Name of the Principal Investigator & Co-Investigator	Project Titles	Funding Agency	Sanctioned Amount in (Rs)
2019-2020				
1.	Mrs. Smita Dange (PI)	To build secure IoT Network	University of Mumbai	Rs.35,000
2.	Mrs. Kavita Shelke (PI)	Development of an IoT enabled Lamb Wave-based Real time Damage Detection System	University of Mumbai	Rs.40,000
3.	Mrs. Shagufta R (PI) Dr. Lata Ragha (CI)	Robots for transportation of supplies in rugged terrains	University of Mumbai	Rs.25,000
			Total	**Rs.1,00,000**

JOURNAL PUBLICATIONS

Sr. No.	Name of the Faculty	Title of the paper	Details of Publication
2019-20			
1	Dr. Lata Ragha	ETSR: Enhanced Trust based Secure Routing Scheme for Mobile Ad hoc Networks	Journal of Computational and Theoretical Nanoscience, Volume-16, Issue 5-6, pp.2265-2272.
		Establishing Secure Routing Path Using Trust to Enhance Security in MANET	Springer International Journal of Wireless Personal Communications, pp.1-11.
		Hybrid Spectrum Access Model using Game Theory Approach for Multi-Channel Heterogeneous Mobile Cognitive Radio Wireless Sensor Network	Indonesian journal of Electrical Engineering and Computer Science, Vol 16, No 1, pp. 116-126.
		Effective bandwidth prediction through statistical technique over heterogeneous networks	International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-12, pp. 508-512.
		Enhanced Approach to Find Topic Experts in Forum	International Journal for Science and Advance Research in Technology (IJSART) vol5, Issue 4, pp. 1258-1266.
2	Kiruthika M	Best Fit Resume Predictor	International Research Journal of Engineering and Technology (IRJET) Volume 6, Issue 8, S.NO:159, e-ISSN: 2395-0056.

PUBLICATIONS
(TILL DATE)

Sr.No	Faculty	National Conference	International Conference	International Journal
1.	Dr. Lata Ragha	15	57	56
2.	Mrs. M. Kiruthika	10	19	22
3.	Mr. Amroz S	02	--	11
4.	Mrs. Smita Dange	09	10	09
5.	Mrs. Shweta Tripathi	07	04	11
6.	Mrs. Rakhi Kalantri	09	10	13
7.	Mrs. Sandhya P	04	04	21
8.	Mrs. Shagufta R	04	07	13
9.	Mrs. Dakshayani G	02	06	12
10.	Mrs. Kavita S	01	03	12
11.	Mr. Mritunjay Ojha	01	05	13
12.	Mr. Rahul Jadhav	03	08	11

STUDENT ACTIVITIES

STUDENT PUBLICATIONS

Academic Year 2018-2019				Page No.
Sr. No.	Student Name	Paper Title	Details	
1.	Sujit Amin Nikita Jayakar Pheba Babu Sonia Sunny	Web Application for Screening Resume	**3rd Biennial International Conference** on Nascent Technologies in Engineering (ICNTE) January 4-5, 2019	
2.	Robin Jaison Adil Khot Gloria Benny AkshayBhosale	Indoor Navigation System using BLEBeacons	**3rd Biennial International Conference** on Nascent Technologies in Engineering (ICNTE) January 4-5, 2019	
3.	Sebin John Akash Maurya Rasika Shinde Rahul Wable	Chronic Kidney disease Prediction and Recommendation of suitable Diet Plan by using Machine Learning	**3rd Biennial International Conference** on Nascent Technologies in Engineering (ICNTE) January 4-5, 2019	
4.	Ronnie Thomas Adarsh Saroj Shantanu Wagh Annapurna Pandita	Image Morphing and detection using CNN	**Digital Forensics** 4n6 Journal, May 2019 issue	
5.	Joel Miranda Jariel Gojar Sheldon Karkada Dylan D'Souza	Integrating the Sam Sensor with the Mars Rover Simulator	**2nd Biennial International Conference** on Emerging Trends on Engineering Science, Technology and Management-19 10th & 11th May 2019 Trivandrum , Kerala	
6.	Shivanand Babu Gollagi Krupa Deepak Jarwala Tushar Anil Masane Aleena George	Image Compression Using Generative Adversarial Network	**IEEE Sponsored Global Conference** for Advancement in Technology (GCAT)2019	
7.	Shanita Sojan Frezy Roy Lijo Varghese	An Android Application for School Information System	**International Journal** of Innovations in Engineering & Technology (IJIET) Volume 13 Issue 1 April 2019	
Total Number of Students			27	

COMPETITIVE EXAM DETAILS

Year	Exam	No. of Students Appeared	No. of Students Qualified
2019 - 2020	GATE	9	9
	GRE	5	2
	TOEFL	5	5
	IELTS	1	1

CAMPUS PLACEMENT

Sr.No	Company	No. of Offers	Pay Package
1.	TCS Ninja	15	3.36 LPA
2.	LTI	8	5 LPA / 6.5LPA
3.	Infosys	8	3.6 LPA
4.	TCS Digital	3	7 LPA
5.	TATA Power	1	5.5 LPA
6.	Godrej	3	5.5 LPA
7.	Citius Tech	2	4.5 LPA
8.	NSEIT	4	3.5 LPA
9.	Reliance JIO	2	3.5 LPA
10.	Object Edge	2	6 LPA
11.	Cactus	1	5 LPA
12.	Sciative Solutions	1	4.1 LPA
13.	Endurance	1	3 LPA
14.	Cyber Tech	1	3.5 LPA
15.	Xoriant	1	4.5 LPA
16.	Capgemini	1	3.4 LPA

Total number of students placed : 41
Average Package : 4.2 LPA
Total number of offers : 54
(Including dual offers where students chose higher packages)

TCS Ninja (15)


Mr. Atharva


Ms. Amruta


Mr. Vipul


Mr. Joel


Mr. Anuj


Mr. Ahan


Mr. Freddy


Mr. Blessingh


Ms. Shruti


Mr. Rajshankar


Mr. Ryan


Ms. Shreya


Ms. Kranti


Mr. Ankesh


Ms. Komal

Pay Package: 3.36 LPA

LTI (8)


Mr. Anuj


Ms. Shruti


Ms. Saumya


Mr. Rajshankar


Mr. Jovin

Pay Package: 5 LPA

Mr. Prasun

Mr. Shubham

Ms. Salome

Pay Package: 5 LPA

Pay Package: 6.5 LPA

INFOSYS (8)

Ms. Annie

Mr. Jithin

Mr. Jonathan

Mr. Omkar

Ms. Roselyn

Mr. Tejesh

Mr. Abhishai

Ms. Prachi

Pay Package: 3.6 LPA

TCS DIGITAL (3)

Mr. Siddhesh

Mr. Naeem

Mr. Terrell

Pay Package: 7 LPA

TATA POWER

Ms. Shreya

Pay Package: 5.5 LPA

GODREJ (3)



Mr. Cyrus Mr. Clarence Mr. Himanshu

Pay Package: 5.5 LPA

CITIUS TECH (2)

Ms. Amruta Mr. Varghese

Pay Package: 4.5 LPA

NSEIT (4)




Mr. Freddy Mr. Blessingh Ms. Shreya Ms. Edlequinn

Pay Package: 3.5 LPA

RELIANCE JIO (2)


Mr. Akash Mr. Omkar

Pay Package: 3.5 LPA

OBJECTEDGE(2)


Mr. Akash Mr. Vipul

Pay Package: 6 LPA

CACTUS

Mr. Tejesh

Pay Package: 5 LPA

SCIATIVE SOLUTIONS

Mr. Deepak

Pay Package: 4.1 LPA

ENDURANCE

Mr. Leo

Pay Package: 3 LPA

CYBER TECH

Mr. Harun

Pay Package: 3.5 LPA

XORIANT

Mr. Omkar

Pay Package: 4.5 LPA

CAPGEMINI

Ms. Edlequinn

Pay Package: 3.4 LPA

POSTER PRESENTATION WINNERS
SEM 5

	Project Title	Team Members
1st Prize	Real Time Object Detection	Evan Velagaleti Raj Salvi Melvin Thankachan Vikas Tripathi Veerasai Subramaniam
	Predictive And Prescriptive Analysis Of Plant Diseases	Riyali Panmand Soumya Haridas Shreyas Labshetwar Piyush Kolte Rutuja Deshpande
2nd Prize	Smart Doorbell System Using IoT	Jennifer Fernandes Elson Pinto Anshal Anthony Arushi Sinha
	Daycare Management System	Sureshkumar Jha Jefin Francis Nixon Paulson Christopher Cardoza
3rd Prize	Power Consumption Indicator	Parth Shinde Rohan Sawant Himanshu Pandita Chinmay Chaudhari
	Mobifi Car	Mrunal Bhalerao Elroy Gomes Trisha Lewis Tryambak Gour

STUDENTS ACHIEVEMENTS
2019 - 2020

Sr. No	Student	Title	Details with position
1.	Shreyash Labhesetwar, Piyush K.	Innovation Hackathon	First Prize Details: Won cash price of ₹2,50,000 /- conducted by Sutherland global services on 9th November 2019
2.	Shreyash Labhesetwar, Sanjana Pradhan, Soumya Haridas	University Project	Honored for online facility completion of minor research grant portal
3.	Veerasai S.	Project Competition	First Prize Details: Won cash prize of ₹5,000/- at SIESGST, Nerul on February, 2020
4.	Parth Shinde, Suresh Jha, Jefin Francis	Hackathon	First Prize Details: Won cash prize of ₹25,000/- at Sandip Foundation, SITRC, Nasik on 25-26 February, 2020
5.	Tryambak Gour	Campus Strategizer	Second Prize: IIM, Ahmadabad, 1st October 2019

Sr. No	Student	Title	Details with position
6.	Shreyash Labhesetwar, Piyush Kolte, Soumya Haridas, Rutuja Deshpande	Pravega-2020 Hackathon Topic: Dr. Farm AI - Predictive and Prescriptive Analysis of Plant Diseases	First Prize Details: Won cash prize of ₹40,000/- conducted by IISC Bangalore, 28th, 29th February, 2020
7.	Dheeraj Kallakuri, Sharon Laurance, Vinayak Kurup, Nikhil Londhe	CSI Project and Poster Competition Topic: IoT based Deep learning device(M-LENS)	First Prize Details: Won cash Prize of ₹2000/- at Theems College of Engineering Boisar on 11th April 2019
8.	Suresh Kumar Jha, Jefin Francis, Nixon Paulson	CRECENDO Hakathon-2019 Topic: Remote Server management System	Second Prize Details: Won cash Prize of ₹4500/- at FCRCE Bandra during 15, 16 March 2019
9.	Aksha Bhosale, Gyandip Mallahi, Nikita Jayakar, K.V. Sreenidhi, Robin Kurissery	Smart India Hakathon-2019 Topic: Chromatography	First Prize Details: Won cash prize of ₹1,00,000/- at NIT Warangal during 2, 3 March 2019
10.	Freddy Poly, Mendes Edelquinn, Nimmy Augustine, Shruti Kanatt, Naeem Patel, Shantanu Shinde	Smart India Hakathon-2019 Topic: Operational maintenance of critical vehicles using AR/VR	First Prize Details: Won cash prize of ₹1,00,000/- at NIT Jamshedpur during 2, 3 March 2019
11.	Raveena Dandona	TEDxCOEP	Speaker at TEDxCOEP, March 2019

SIH 2019 Winners at NIT Jamshedpur

Awarded by Mumbai University (MU) for developing an in-house project on Minor Research Grant for MU

Project competition winners at SIESGST, Nerul

Winners of Hackathon at
Sandip Foundation, Nashik

Winners of Innovation
Hackathon

Second prize at CRECENDO Hackathon

Campus Strategizer,
IIM Ahmedabad

Winners of Pravega Hackathon

TOPPERS

SH 2019

SEM VII

Mr. Harun
SGPI: 9.85

Ms. Ankita
SGPI: 9.38

Mr. Rajshankar
SGPI: 8.81

SEM V

Ms. Riyali
SGPI: 10

Ms. Sanjana
SGPI: 10

Ms. Soumya
SGPI: 10

Mr. Anthony
SGPI: 9.85

Mr. Rutuja
SGPI: 9.85

Ms. Srividya
SGPI: 9.85

Mr. Suresh
SGPI: 9.85

Mr. Shreyas
SGPI: 9.85

Mr. Noel
SGPI: 9.85

Mr. Dev
SGPI: 9.78

SEM III

Mr. Shriram
SGPI: 10

Ms. Afrin
SGPI: 10

Mr. Edwin
SGPI: 10

Ms. Dilrose
SGPI: 10

Mr. Anuj
SGPI: 10

Mr. Merwin
SGPI: 10

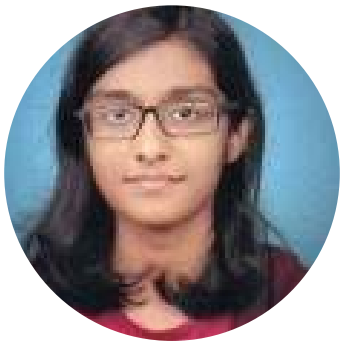
Mr. Shawn
SGPI: 10

Ms. Gauri
SGPI: 10

Ms. Riya
SGPI: 10

Ms. Sherin
SGPI: 10

Ms. Rhea
SGPI: 9.92



Ms. Hanah
SGPI: 9.85

Ms. Angela
SGPI: 9.85

FINAL YEAR
(2016-2020)

THIRD YEAR
(2017-2021)

SECOND YEAR
(2018-2022)

INDUSTRIAL VISITS

Final Year Students' Industrial Visit to Info Tech. Corporation of Goa Ltd.(Itg) , Goa

Second Year Students' Industrial Visit to CETTM – Mumbai

CSI- Computer Engineering SH-2019

" The highest education is that which does not give merely education but makes our life in harmony with existence" - Rabindranath Tagore

The Department of Computer Engineering in concomitance with the CSI (Computer Society of India) chapter of FCRIT Vashi organized various activities for the students in the academic year 2019-2020 to sharpen their technical acumen and serve as a window to the corporate world.

Sr. No.	CSI Event/Workshop	Speaker(s) / Winner(s)	Convener/Co-ordinators
1	ACESS 2019	Chief Guest, Keynote Speaker: Mr.Ashish Satpute Senior Manager at Tata Consultancy Services. Ms Lekshmi B PhD Environmental Engineering IIT Bombay. Mr.Pratik Hegde, a Senior UX Designer at CtiusTech Mr. Nirajan Reddy CTO and Founder NetConclave Systems.	Mrs Shweta Tripathi
2	Summer Project	1st Prize - Evan Velagaleti, Raj Salvi , Melvin Thankachan ,Vikas Tripathi , Veerasai Subramaniam for "Real Time Object Detection". Riyali Pannand, Soumya Haridas , Shreyas Lahshetwar, Piyush Kohe,Rutuja Deshpande for "Predictive And Prescriptive Analysis Of Plant Diseases" 2nd Prize - Jennifer Fernandes, Elson Pinto, Anshal Anthony , Arushi Sinha for "Smart Doorbell System Using IoT.	Mrs. Dakshayani G

		Sureshkumar Jha, Jefin Francis, Nixon Paulson ,Christopher Cardoza for "Daycare Management System" 3rd Prize - Parth Shinde , Rohan Sawant ,Himanshu Pandita, Chinmay Chaudhari for "Power Consumption Indicator". Mrunal Bhalerao , Elroy Gomes, Trisha Lewis ,Tryambak Gour for "Mobifi Car".	
3	CLUEDO	Kotarkar Anuj Surendra, Fernando Edwin Hipson, Merwin Samuel Dharmaraj, Charivukalayil Jitin John	Mrs Shagufta Rajguru Student Co-ordinators Aishwarya Mathew Riyali Panmand Rutuja Deshpande Anchal Maria
4	LIVE IN CODE	Winners Rachit Pulhani Sahil Bansal	Mrs Shagufta Rajguru. Student Co-ordinators Sairam Tushar Maddala Elson Pinto
5	DCODE	Winners Ramesh Angela .J Bhagyashree L Julie Jose Merin Philipose	Mrs Shagufta Rajguru. Student Co-ordinators Noel Pudussery Alistair Baretto Evan Velagaleti Christy Mathew
6	Workshop on Solving Real Time Projects	Mr Pratik Hegde Senior UX Designer at CitiusTech	Mrs Shweta Tripathi

7	Cryptex Workshop	Machine Learning Mr.Alistair Baretto Mr.Shreyas Labshetwar Mr.Piyush Kolte Mr.Raj Salvi Mr.Parth Shinde Android Mr.Prateesh R. K. Mr.Melvin Thankachan Mr.Vikas Tripathi Mr.Nikhil Tatpati Web Development Mr.Suresh Jha Mr.Rohan Sawant Mr.Jefin Francis Mr.Nixon Paulson Python Mr.Christy Mathew Mr.Prajyot Durgavale Ms.Digina Derose Ms.Lieta Lobo Mr.Veerasai Subramanium	Mrs Shagufta Rajguru

Dcode

Live in Code

Cluedo

CSI- Computer Engineering FH -2020

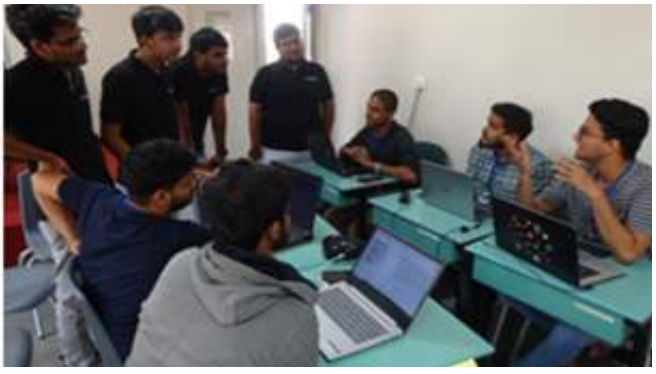
"When creativity blossoms, thinking emanates. When thinking emanates, knowledge is fully lit, When knowledge is fully lit, the country flourishes" - Dr. A.P.J Abdul Kalam

Sr. No	CSI Event/Competitions	Speaker(s)/Winners	Convener
1	AI and ML Workshop	Mr Gaurav Singh, CEO – WeCan Education	Teacher Convener: Mrs.Shweta Tripathi Student Convener: Ms.Roshni Johnson
2	Codesprint	1st place Archit Bhonsle (IT Sem 4) 2nd place :Jeffy Sam (Comp Sem 6) 3rd place Rohit Raina (IT Sem 4) Saumitra Jagdale (EXTC Sem 6)	Teacher Convener: Mrs.Shweta Tripathi Student Convener: Mr.Romik Amipara
3	ACESS 2020	Mr.Karan Balkar Team Lead - LTI Ms.Deepti Goel Executive Director Harrison's Tech Consultants Mr.Pawan Desai Co-founder & CEO Mitkat Advisory Services Pvt Limited	Teacher Convener: Mrs.Shweta Tripathi Student Convener: Ms.Trisha Lewis
4	Cypherhack	Guests of Honour Mr.Venkata Satish Director Security - Rediff India Mr.Gigi Joseph CISO – BARC Chief Guest	Teacher Convener: Mrs.Shweta Tripathi Student Convener: Ms.Soumya Haridas

		Sangeeta Shinde DSP	
5	Technical Paper Presentation	Judges . Dr Sushil Thale Professor, Department of Electrical Engineering and Dean (R&D) Fr. C. Rodrigues Institute of Technology Dr Anjali Yeole Assistant Professor Department of Computer Engineering, Vivekanand Education Society's Institute of Technology Dr Irfan Siddavatam Head, Department of IT, KJSCE Ms Megha Kolhekar Associate Professor Department of EXTC Fr. C. Rodrigues Institute of Technology	Teacher Co/-ordinator(s) Ms Rakhi Kalantri Ms Shagufta Rajguru, Teacher Convener: Mrs.Shweta Tripathi Student Convener: Ms Linda John

CypherHack (covered by DD)

CypherHack



ARTICLES

IS UX/UI DESIGN ONE AND THE SAME OR ARE THEY DIFFERENT?

Introduction

There is no doubt about how technology has made our lives simpler. Great technical advances in the 21st century have made everyone want to experience faster and efficient technology without spending much time and tiring our minds. This applies to innumerable mobile and web applications that we use daily for making payments, ordering something online, entertainment, etc. If a web or mobile application responds quickly and efficiently, it is bound to be a success. Hence, in today's world, a consumer is the king of the market. That is why most technology firms resort to the applications' User Experience (UX) and User Interface (UI) design with regards to mobile application or website user satisfaction. The primary goal of any business is to increase its sales which eventually grows business. UX and UI design play a key role in accomplishing this goal. The UX and UI design of an application can lead to an increased number of users of a specific application by enhancing user experience and customer satisfaction. However, most of the time people outside and inside of the tech industry confuse between the terms UI and UX and also use it interchangeably. So, here we will be decoding the concept of UX and UI design!

UX (User Experience)

"User Experience", often abbreviated "UX", is the quality of experience a person has when interacting with a specific design. This term has been popularly used in human-computer interactions but applies to any human design interaction, ranging from a digital device, to cars, to a sales process, to almost everything. The term "User Experience" was first coined by Don Norman, co-founder of the Nielsen Norman Group Design Consultancy, in his book titled "The Design of Everyday Things" in the late 90s. He describes it as

"User experience encompasses all aspects of the end-user's interaction with the company, its services, and its products."
Don Norman, Cognitive Scientist & User Experience Architect.

Here, "user experience" refers to the interaction between the user and the product/service. The goal of user experience design is to create an easy, effective, suitable and an all

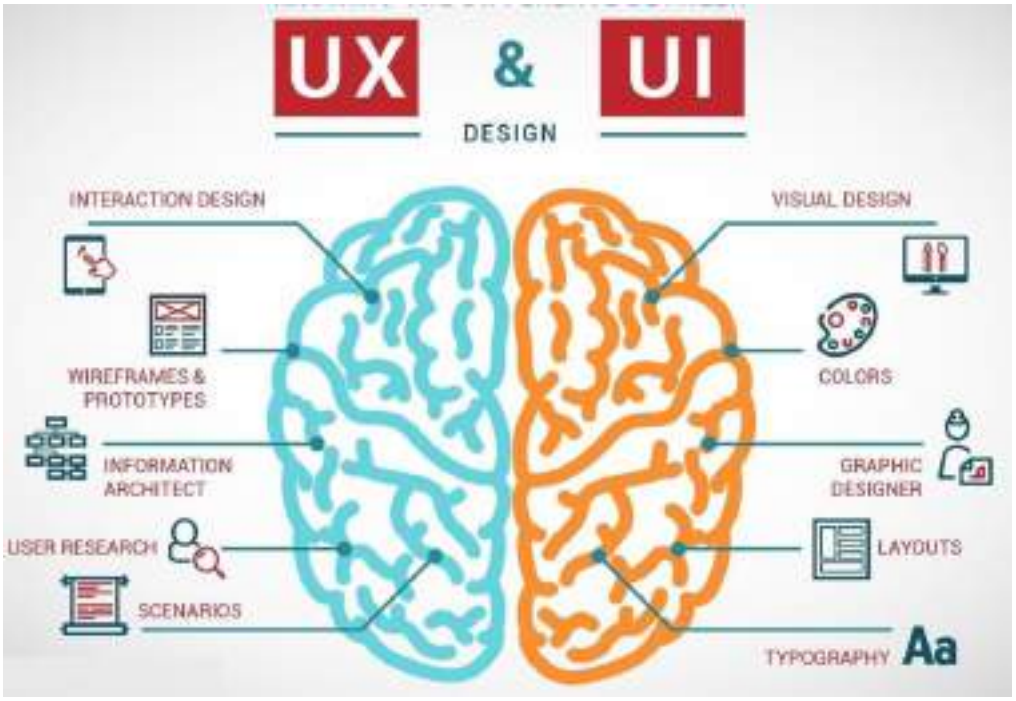
together pleasant experience for the users. It is about understanding how the experience makes the user feel, does it help the user in accomplishing his/her desired tasks and also whether it enhances the productivity of the user. Everyday life examples include how easy it is to operate the coffee machine, does the banking application make it easier for you to carry out transactions, etc.

UI (User Interface)

In the field of human-machine interaction, a "user interface" (UI) is defined as the space in which interactions between a human and a machine occur. User interface design deals with the look and feel, interactivity and presentation of the product/service.

The goal of UI design is to produce a user interface that makes it easy, efficient and user friendly to operate a machine that produces the desired results. UI design involves careful consideration of every visual, interactive element the user might encounter as well as the accessibility of the interface. A UI designer will think about the input controls such as text fields, dropdown lists, buttons, navigational components such as sliders, search fields, typography, informational controls such as tooltips, notifications; color schemes, spacing, imagery, responsive design, animations and much more.

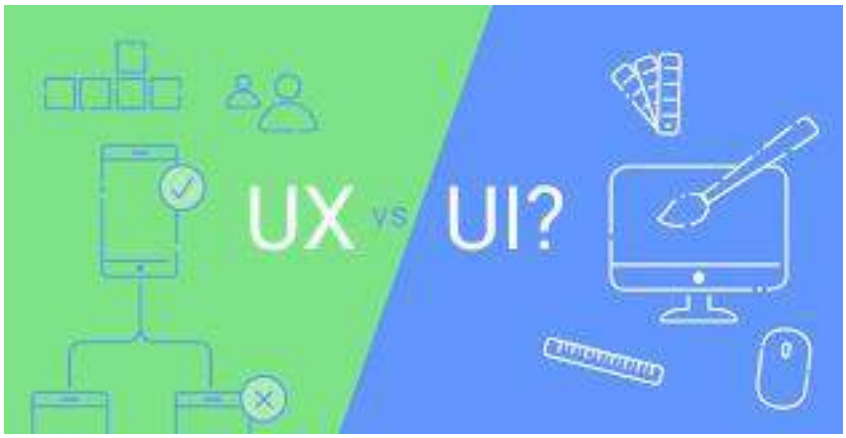
How is UX different from UI?



UX design is all about the overall feel of the experience, while UI design is all about how the product's interfaces look and function. A UX designer will conduct research and will develop wireframes and task flows based on user needs. Now, wireframe is nothing but a blueprint of your website or application, providing a basic structural guideline. Task flows, on the other hand, depict how a user travels through the system to perform a specific task. A UX designer will also create user personas. User personas are nothing but fictional characters created to represent user types of your target customers.

Coming to UI design, it serves as an icing on top of the UX cake, i.e after the basic structure (UX design) is developed, the UI design adds life to it by filling it with visual and interactive elements. UI design is not all about looks. UI designers need to ensure if their product is accessible to all with visual hierarchy, ensuring the right color combinations to create contrast and increase readability, positioning of the UI elements, flexibility as well as accessibility in design.

The Bottom Line



To sum up, both UX design and UI design work hand in hand. Both are essential. Having a fantastic UI that is not easy to use is an example of a good UI design but a poor UX design. Similarly, having something which is simpler to use or which makes tasks easily accomplishable but looks terrible is an example of a good UX design but a bad UI design. In today's competitive business environment, it is vital to have both these aspects incorporated within product design as it would lead to better customer engagement which eventually brings in revenue and greater success.

Thanks for reading till the end!

Salome Palani
BE Computer
Semester 8

AI AND HOMELESSNESS - WHAT IS THE WAY FORWARD?

Artificial Intelligence could increase homelessness - what should companies do to protect workers?

Companies need to invest in training and education so AI works for everyone.

The growing field of technology promises innovations that will improve the quality of life for all, or at least those that can afford to own or use the means. Yet while the United States and much of the industrialized world enter this new age of technology, the focus on progress seems to leave out one of the most vulnerable groups in society: the homeless.

With the homelessness growing in the world, is there room for this group in a world where most entry-level jobs will be covered by Artificial Intelligence (AI)? AI is defined as the theory and construction of computer systems able to perform tasks that normally require human intelligence.

According to a report by the Executive Office of the President National Science and Technology Council Committee on Technology in 2016, the use of AI could make some skills unnecessary, while other skills will be highly sought after to complement the use of machinery.

Many of the skills that will be needed require intense training and background knowledge. The report states that a world with AI calls for a “data-literate citizenry that can read, use, interpret and communicate about data and participate in policy debates about matters affected by AI”.

According to Article 23.1 of the Universal Declaration of Human Rights, there is a right to work as well as protection against unfair termination from employment. The growing use of Artificial Intelligence over human workers leaves hundreds of workers in jeopardy of being replaced by technology and threatening the availability of employment.

Workers can be easily replaced by AI technology that can execute tasks faster, work for longer days, and is more efficient. People living in extreme poverty and the homeless may lack important training or skills, making them unable to compete with AI technology for many jobs, creating a barrier to them being hired to work the technology.

For people without access to the training, or education needed to use and understand Artificial Intelligence, the ability to find work in this type of world will shrink. Years since the release of the 2016 report, the introduction of simple machinery in transportation, the service industry, and other sectors has already eliminated the need for human workers to do certain tasks.

This population is at risk of being harmed by AI taking away entry-level jobs that could otherwise be done by a human being. An example of the growing trend toward AI presenting problems for those homeless or living on the brink of becoming so is the service industry.

With this change in employment opportunities, a new set of skills will be required of workers to handle advanced technology like AI. Workers will be expected to be familiar with AI before being hired which will make homeless individuals without the means to enroll in training, less attractive candidates, or keep them out of certain service jobs completely.

While AI could pose a major threat to the homeless and low-level income populations of the world, there have been efforts made by large organizations to mitigate the expected loss of human workers in job fields.

According to the World Economic Forum, technology designers must be ethical in their creation of computer programming and AI technology. The Forum goes on to offer advice in offering proper education and training to workers, using AI to help with repetitive tasks as opposed to entire jobs, and equal distribution of opportunities to work.

These pieces of advice will be key for businesses to incorporate to prevent the elimination of hundreds of jobs for individuals in need as well as promoting a more data-literate society without excluding large sections of the population in the process.

Anthony Thomas
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Semester 6

COINBASE: WHAT IS IT AND HOW DO YOU USE IT?

Cryptocurrencies are digital currencies using encryption techniques that regulate the generation of currency and verify the transfer of funds, operating independently of a central bank. Units of currency are created through a process referred to as mining.
In the case of Bitcoin, miners run computer programs to verify the data that creates a complete transaction history of all Bitcoin. A technology known as the blockchain, which is used to create irreversible and traceable transactions, makes the process of verification possible. Once a miner has verified the data (which comes in a block, hence, blockchain), they are rewarded with some amount of digital currency, the same currency for which they were verifying the transaction history. So mining Bitcoin, for example, would earn you Bitcoin.

Coinbase is a global digital asset exchange company (GDAX), providing a venue to buy and sell digital currencies. Products like Coinbase are a way to begin a foray into a new form of currency speculation and investing. Coinbase serves as a wallet, too, where the digital currencies can be stored. The application operates exchanges of Bitcoin, Ethereum, Bitcoin Cash, and Litecoin, as well as other digital assets with fiat currencies in 32 countries, and Bitcoin transactions in many more countries. According to its website, Coinbase has served over 10 million customers and facilitated the exchange of more than $50 billion worth of digital currency. Essentially, if you are interested in trading in digital currencies but don't want to get bogged down in the underlying technology, products like Coinbase are a way to begin a foray into a new form of currency speculation and investing. You do, however, lose some of the advantages of trading in a cryptocurrency and through the blockchain. On Coinbase, you have no pseudo-anonymity—your name is attached to your Coinbase account and so is your bank account, so transaction history is relatively easy to track down. And if you're not working on the blockchain, there's not much you can do to ensure that the verification of your transaction history or your account is taking place on the blockchain. You are, instead, placing trust in the intermediary, in this case, Coinbase.

Buying and Selling Cryptocurrency

Coinbase requires you to link a bank account, or credit or debit card to your Coinbase account to purchase cryptocurrencies. Using a bank account allows for higher limits ($100/transaction, $2,500/week), but it also takes longer to verify transactions, so you will not see money in your Coinbase wallet for two to four days (depending on your bank). And when selling Bitcoin, once the sale is confirmed, it takes two to four days for the proceeds of that sale to show up in your bank account. With a credit or debit card, limits are lower

($200/week), but you can purchase digital currencies by simply transferring funds from that bank account to the site. For these transactions, Bitcoin shows up in your Coinbase wallet instantaneously. You can also sell Bitcoin to your PayPal account, effectively cashing out, as your Bitcoin will be exchanged for local currency. This transaction, too, is instantaneous.

Despite the intricate technology associated with and necessary for cryptocurrency investing, speculation and possession, Coinbase has created an apparatus that makes this process remarkably easy and familiar, almost like buying and selling stocks. This screenshot from the Coinbase site shows real-time cryptocurrency prices and doesn't look too different from your ordinary online stock tracker.

Security and Insurance

The platform stores 98% of customer's funds offline to ensure the security of the cryptocurrency assets you purchase and store within Coinbase. On their website, Coinbase assures customers that "sensitive data that would normally reside on our servers is disconnected entirely from the internet." Data is then encrypted, and transferred to USB drives and paper backups, and distributed in safe deposit boxes vaults all over the world.

The other 2% of customer funds, held online, are covered in the event of a breach of Coinbase's online storage. Also, Coinbase holds all customer fiat currency in custodial bank accounts, on behalf of customers. So, if you have fiat currency in Coinbase, in a USD wallet, it is covered by FDIC insurance up to $250,000 (just like a "regular" bank). This protects customer assets (so long as they have been converted to fiat currency) even in the event of Coinbase becoming insolvent.

Alistair Baretto
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Semester 6

CONTACT TRACING APPLICATION CONUNDRUM

Humanity is on the brink of an unprecedented crisis. The government's around the world are struggling to contain the spread of the Covid-19 Virus. The world governments are devising various strategies to fight the invisible enemy and bring the situation under control.

Dr Tedhros Adhanom Ghebreyesus, WHO head, in his press address in the month of March had said, 'Our key message is: test, test, test'.
South Korea has set an example for nation-states across the world by successfully employing the mantra- "Test, Trace and Contain" and flattening the curve.
South Korea set up numerous mobile centres, which conducted the tests free of charge within 10 minutes.

The results were sent to phones within 24 hours and thus helped to test a large fraction of the South Korean population.
The most striking feature of South Korea's drive to flatten the curve was tracing. People who tested positive were asked to describe their recent movements, aided by GPS phone tracking, surveillance camera records and credit card transactions. Those details enabled the Korea Centres for Disease Control and Prevention to issue alerts, in real-time, about where infected people had been before their positive status was confirmed.
Amid criticism that the system could trample on privacy, the alerts contained only the gender and age category of each infected person and names and addresses of the places they had visited.

Following the South Korean model, India too has launched its contact tracing app- Aarogya Setu, which has over 100 million downloads on the Playstore.
The usage of Aarogya Setu application has been made compulsory by the GOI for all citizens living in the containment zone and all government and private sector employees.
Though largely seen as a welcome move by the general public, the App has off-late become a subject of intense scrutiny in the Data Security Experts circle.
Aarogya Setu uses Bluetooth to primarily collect demographic data, location data, contact data and, self-assessment data.
The NIC has clarified that the aforementioned user data is shared with the various state and central government institutions, “where sharing is strictly necessary to directly formulate or implement an appropriate health response”.
The much-heralded Justice K.S.Puttaswamy(Retd) vs Union of India case affirmed the Right to Privacy as a Fundamental Right of every citizen of India, under Part III of the Constitution.

The Apex Court albeit has purported in the very same verdict that the Right to Privacy like any other Fundamental Right is not absolute stating that a person's privacy interests can be overridden by competing state and individual interest, after being subject to the satisfaction of certain tests and benchmarks.
Elliot Alderson, the renowned French ethical hacker came down heavily on the security claims made by the GOI and in his report stated that the App has serious security flaws.
The GOI has denied such allegations.
Indian Minister of Law, Dr Ravi Shankar Prasad clarified that the data will not be stored permanently by the Government.
We have seen in the past where the Governments have passed laws that can be intrusive to individual privacy like the USA PATRIOT Act.
Though most of the clauses of this Act have expired, the Law by itself has not become null and void.
National Health Service, the Health Organization of the UK too has launched its Contact Tracing Application but chose to make the source code of the application public.
Contact Tracing Apps are here to stay. It would be premature to comment on the success or the failure of the same.
The Governments, however, need to keep one thing in mind that, 'Privacy is not a luxury but a Right of every citizen'.

Digina Derose
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Semester 6

FOLDABLE PHONE

Futuristic-looking bendable smartphones and tablets have captured our imagination for years. (Folding out of a phone) A phone unfolding itself into a much larger device is dreamlike and today that dream has been set into a reality. Technology is advancing at a greater rate than one could imagine. What we thought would be impossible to do yesterday has become possible today.

The Samsung Galaxy Z flip, launched in February, has grabbed great attention from the general public. The Galaxy Z Flip is Samsung's second attempt to make a foldable phone after last year's Galaxy Fold. The Z Flip flips open to reveal a 6.7-inch display. (Start with that) The initial display, which features an ultra-thin layer of glass, makes the Z Flip feel more polished than similar devices. On the outside of the Galaxy Z Flip, you have a 1.1-inch display that is big enough to show the time and notifications of incoming calls or messages received. Because of the hinge Samsung uses, the Z Flip opens at any angle. The Galaxy Z Flip uses a Snapdragon 855 Plus system-on-chip.

The second age of the flip phone has arrived, with Motorola’s new Razr combining a futuristic folding screen with a distinctly retro form, another foldable phone launched around the same time, featuring a 6.2 -inch display which utilizes a Qualcomm Snapdragon 710 processor with 6GB RAM And 128GB storage. Motorola's Razr folds in half without a crease and its secret is in the hinge design. The Fingerprint scanner is on the front in the bottom 'chin'. However, it contains no expandable storage slots.

These foldable phones have ushered in a new generation of innovation. The fact that we have two foldable phones appearing within the same timeframe is exciting. Certainly, the Moto Razr has won a lot of fans thanks to its appearance and we have to admit that having (played with the phone) handled the phone on a couple of occasions, the nostalgia value around this form and design is huge - it is really desirable. The hardware load-out of the SAMSUNG Galaxy Z flip is more appealing- in most aspects of the Z Flip's specifications, Samsung has the edge.

Since the Samsung phone is cheaper than the Moto Razr, it will represent better value for money. The Moto Razr really has to sell itself on its design. Unfortunately, with Samsung coming to the market so close to Motorola, it might be a bit harder to sell the Razr.

Lieta Lobo
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Semester 6

NATURAL LANGUAGE PROCESSING

When we talk about the buzzword “machine learning”, the things that come to everyone’s mind is futuristic AI generated faces, machine made video games or computer programs that can beat you in a game of counter strike. These algorithms and machines most definitely sound fun and impressive, but the basis of everything is communication. And the biggest form of human communication is Language. Machines that can analyse, interpret and reply with words.

Unstructured text in the form of social media posts, emails, raw text, HTML web pages make up a very huge part of the data that is available in the world, and a major part of the internet. Spoken words are the most natural way of communication of thoughts, feelings and intentions. So, what if we want to build machines, that are so versatile and intelligent, that we can get them to understand human language. This is the field of machine learning that we broadly call as NLP or Natural Language Processing.

Working with natural language data, is a problem that has in no means been solved yet.

It is hard from the standpoint of the child, who must spend many years acquiring a language ... it is hard for the adult language learner, it is hard for the scientist who attempts to model the relevant phenomena, and it is hard for the engineer who attempts to build systems that deal with natural language input or output. These tasks are so hard that Turing could rightly make fluent conversation in natural language the centrepiece of his test for intelligence.

— Page 248, Mathematical Linguistics, 2010.

PROMISE OF DEEP LEARNING, Deep learning methods are popular, primarily because they are delivering on their promise. That is not to say that there is no hype around the technology, but that the hype is based on very real results that are being demonstrated across a suite of very challenging artificial intelligence problems from computer vision and natural language processing. Some of the first large demonstrations of the power of deep learning were in natural language processing, specifically speech recognition.

The Promise of Drop-in Replacement Models. That is, deep learning methods can be dropped into existing natural language systems as replacement models that can achieve commensurate or better performance.

T**he Promise of New NLP Models.** That is, deep learning methods offer the opportunity of new modelling approaches to challenging natural language problems like sequence-to-sequence prediction.

T**he Promise of Feature Learning**. That is, deep learning methods can learn the features from natural language required by the model, rather than requiring that the features be specified and extracted by an expert.

The Promise of Continued Improvement. That is, the performance of deep learning in natural language processing is based on real results and that the improvements appear to be continuing and perhaps speeding up.

The Promise of End-to-End Models. That is, large end-to-end deep learning models can be fit on natural language problems offering a more general and better-performing approach.

Shreyas Labhsetwar
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Semester 6

FUTURE OF DIGITAL TRANSFORMATION: BLOCKCHAIN

Blockchain isn't a household buzzword, like Machine Learning or Artificial Intelligence and neither is it an in-your-face innovation that you can see and touch as easily as a smartphone but in a world where anyone can edit a Wikipedia entry, blockchain is the answer to a question we've been asking since the dawn of the internet age: How can we collectively trust what happens online? Every year we run more of our lives, more core functions of our governments, economies, and societies on the internet. We do our banking online. We shop online . We log into apps and services that help send information back and forth. But the question prevails “Is our data in safe hands?”.

Blockchain could possibly be the answer to all such questions. This technology is currently at the peak of the Hype Cycle. It is a simple concept, yet difficult to understand and comprehend. It is in the same place as the Internet was in 1995 – very early, with its major applications yet to be built. Think of blockchain as a historical fabric underneath recording everything that happens every digital transaction, exchange of value, goods and services, or private data exactly as it occurs. Then the chain stitches that data into encrypted blocks that can never be modified and scatters the pieces across a worldwide network of distributed computers.

“Blockchain is as much a philosophy as a technology, and has the potential to change the world as the Internet did” as quoted by Jaspreet Bindra, Chief Digital Officer of Mahindra group. It promises to radically transform identity, agriculture, money, energy, governance, and pretty much everything else. Paying heed to its inventor Satoshi Nakamoto , blockchain basically aims to ensure distributed trust and peer to peer interactions without involving any type of third party intermediaries. A blockchain is made up of two primary components: a decentralized network facilitating and verifying transactions, and the immutable ledger that network maintains. The power of blockchain's distributed ledger technology has applications across every kind of digital record and transaction, and we're already beginning to see major industries leaning into the shift.

“A vehement ‘no’ to cryptocurrencies but blockchain is ‘welcome’” said our former Finance minister Arun Jaitley. The Andhra Pradesh government has also recently started using blockchains to keep track of the land related records.Not only will this technology help in making things economically viable but it will also help in assuring that the process is transparent.

Blockchain in the future will revolutionize business processes in many industries, but its adoption requires time and efforts. Nevertheless, in the near future, we can expect that governments will finally accept blockchain benefits and begin to use it for improving financial and public services. Blockchain will stimulate people to acquire new skills, while traditionalbusiness will have to completely reconsider their processes.

Soumya Haridas
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Semester 6

A BIT ON TENSORFLOW

Joey Caesar, CEO of Siemens quoted “Data is the oil, some say the gold, of the 21st century”, in 2018 in a conference in Stockholm. With terabytes of data and the storage to handle this data, the data revolution started. Data science, ML and AI were the results of this revolution. Google had its own answer for the data revolution.

Google developed an end-to-end open source platform for machine learning that lets researchers push the state-of-the-art in ML and developers easily build and deploy ML powered applications. TensorFlow was developed by the Google Brain team for internal Google use. It was released under Apache License 2.0 on November 9, 2015.

Tensorflow comes with many open source python libraries which help programmers (data scientist here) to build ML models, optimize it and also analyze their business model. Tensorflow also provides some widely used Datasets for testing machine learning models .

Keras one of the libraries of Tensorflow comes with full-fledged array of functions to develop a fully functional Neural Network. It supports many Neural Network architectures like ConvNN, RecurrentNN etc .

The wide range applications of Tensorflow ranges from Image Recognition, Computer Vision, Natural Language Processing. Tensorflow is used extensively in almost all domains currently for developing Neural Networks. Some industry applications may include Cancer detection, Self – Driving cars (Tesla, BMW, Audi), Google Assistant, Apple Siri, ChatBots etc.

Google is now Automating the model creation process using python and also providing AI solutions and analytics in their new Google Cloud.

Platform Project. Feel free to have a look at that too!!!!!

Shriram Athreya
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Semester 4

SOME USEFUL UNKNOWN BY GOOGLE!

1)Socratic:

It is an app which was mainly designed for students for educational purposes. It uses AI technology to accurately predict which concepts will help a student solve their question. Over months, millions of real student questions were analysed and classified. Then the app uses that data to guess on future questions and provide specific education content.

The app works by letting students take a photo of a homework question.[8] Using OCR (Optical Character Recognition), the app is able to read their photo and classify it using the technology described above. Students receive various "cards" in the app with different learning resources such as definitions, YouTube videos, Q&A, and original content and illustrations written by the Socratic.org web community.

In January 2017, Socratic added additional math features to the app, including step-by-step equation help and graphs.

There are total 4 subjects which have sub divisions:

1)Science
2)Math
3)Social Science
4)Humanities

2)Measure:

Google's augmented reality app "Measure" turns ARCore-compatible Android smartphones into digital measuring tapes, as reported by Ars Technica

Just fire up Measure, aim your phone's camera at any object around you — a box you need to ship, a ship you need to box, or anything in between — and within a matter of seconds, the app will help you drag a virtual tool onto the image and get a real-world measurement of any of its sides.

Measure can even handle metric units, if that's your jam, and can estimate elevation along with distance.

3)Expeditions:

Google Expeditions is an immersive education app that allows teachers and students to explore the world through over 1000 virtual-reality (VR) and 100 augmented-reality (AR) tours. You can swim with sharks, visit outer space, and more without leaving the classroom. Teachers and students can use Tour creator to create virtual-reality tours and publish them on Poly. Teachers can add tours they created in Tour Creator to Expeditions to guide students in their classes. Also, tours that teachers like or share to Expeditions on Poly are added automatically to their Expeditions app.

There are 2 modes on the app: Guide (teacher) & Explorer (student)The Guide launches an Expedition and the Explorers view it in 3D through their Google Cardboard viewers with device inside.

4)Grasshopper:

It is a coding app for beginners by Google by using fun tricks, games to teach you write real Java Script. Using the app, you move through progressively challenging levels as you develop your abilities. Once you pass all the levels you will have a good grasp of fundamental programming skills and you can start your journey as a coder.

5)Google Sky:

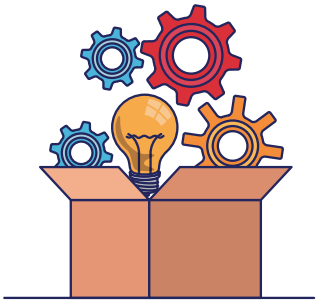
To help you explore the far reaches of our universe, we have teamed up with astronomers at some of the largest observatories in the world to bring you a new view of the sky. Using Google Maps this tool provides an exciting way to browse and explore the universe. You can find the positions of the planets and constellations on the sky and even watching the birth of distant galaxies as seen by the Hubble Space Telescope. The imagery for Google Sky comes from some of the largest ground- and space-based astronomical surveys.

Google Sky includes a number of different ways to explore the universe. The initial view shows the visible universe and is a mosaic of images from the Sloan Digital Sky Survey, the Digitized Sky Survey and the Hubble Space Telescope. Select the thumbnail images at the bottom of the display to bring up the planets, the constellations, highlights from the Hubble Space Telescope, famous stars, galaxies and nebulae, views of the universe in the x-ray, ultraviolet and infrared and podcasts about upcoming astronomical events from Earth and Sky Podcasts.

6)Google Primer:

For those of you who need their businesses to prosper, Google offers you a fantastic way to do so. This app helps in promoting brick and mortar business's and wants to help brands bloom on digital platform. It is basically a free mobile app from Google that offers quick, easy-to-understand lessons for business owners and anyone looking to grow their business and digital marketing skills. It helps you to understand the concepts of Digital Marketing through simple modules which you can learn anywhere and anytime at your own pace.

Anshuta Kakuste
Computer
Sem 4



CREATIVE SECTION

-Made by Julie Jose(Sem 4)

-Made by Anish(Sem 6)

-Made by Gauri Sanjay Patil(Sem 4)

-Made by Rutvik kokate(Sem6)

-Made by Julie Jose(Sem 4)

-Made by Riyali (Sem 6)

-Made by Salome (Sem8)

-Made by Gauri Sanjay Patil(Sem 4)

God
Say the learned,The God is omnipotent
Resides He in stone and in our every bone
Ye believe the Rock is Him
But O naive mortal,He ain't a rock
He is supreme and all potent
Waits for thee,thy sins to atone
Your lips service the five runed One
Jesus ,Budha ,Visnu and Rahim
But O barbarian,why don't you shun
The path of deceit and into his arms run
For different are His apellation
Yet He is One
God has no religion
And who loves Him,sees none.

-by Digina Derose (Sem6)

ALUMNI SECTION

Ancy Bejoy
(Batch of 1998)

Dear Agnelites,

Happy to be part of this newsletter today post 21 years of passing out of Fr. Agnels.

I am proud to be part of the first engineering batch that passed out in 1998. I was among the lucky few who got admission in Fr. Agnels Vashi in 1994 in the Computer Engineering batch as the last entry. Roll number "44". Those were the days when India was gearing up to meet the Y2K global challenge and the Internet booming along..providing lots of opportunity in the Computer world. Let me rewind back to my first year.. and first day in college. I was glad that my sister too had made it throuh the last entry in Electrical stream.. Another interesting story for some other letter. We were a abunch of students spread across Computers, Electronics, Mechanical, Electrical streams. All from various walks of life.. some aspirational... some lost.. some to enjoy college life.. All were connected as an AGNELITE family.. mostly when it came to assignment submissions 😊

Our late Fr Orlando, the first managing director, ensured strict decorum & discipline. We all cribbed about the gate closing at 8:00am and the assembly all had to attend...However looking

back at those aspects has made me value and respect being on time even today. I don't regret that we had a little discipline back in our learning days.

We had some of the best and dedicated teachers who went out of their way to explain concepts and tirelessly worked along with us day in and out. I'm glad to see them still associated with the college and grown in their careers.Most of them like Bindu ma'am , Mini ma'am and Sushil sir had started as fresh teachers along with us... and they still look young & great when we connect in college even today. Really great role models.

I'm proud to see how the college has matured over the last 20 years – hosting its own annual festivals and campus recruitment. Great to see Law added as one of the curriculum. And the new building that gives opportunities to budding entrepreneurs. Very well done!!

My message to each AGNELITE is – In Fr Agnels you are under the best guidance and mentorship . Utilize these growing years to build your values and knowledge. Promise yourselves to appreciate every job you take..as each brings with it a learning. Remember Oppurtinities mostly come in the form of challenges..so think twice before saying "No". There is no concept of Failure, until you have thought so yourself. Every failed path has taught you something new. So don't shy away from trying out new things.

Don't rush with life so fast that you stop taking a pause to appreciate and enjoy the valuable priceless gifts. Enjoy the journey as the destination always moves. Some may reach their goals faster, don't compare yourself with others journey of life, as far as you are moving.

Always respect and provide equal oppurtunites to both men and women at the workplace and at home. We cannot create a successful nation and a world until we start this from our own homes.
My special message to all the women out there – Have your own dreams and never underestimate the power you hold. Marriage and family sometimes pulls you back from achieving your dreams. Get your priorities right..and you will always find the way to achieve your dreams.

Wishing you all good luck in your careers and life.

Grace Marylyn John
(Batch of 2017)

Hello Agnelites,

It gives me immense pleasure to be able write this piece as an Agnelite. I am feeling a strong wave of nostalgia as I am writing this note to you.

I joined Agnels in 2013 in the Computer Engineering Branch and my journey of 4 years of learning,, fun and amazing college memories began.

Agnels is not just a college, it's a way of life. Once an Agnelite always an Agnelite!

What makes Agnels unique? The morning assemblies, late mark lines, compulsory attendance,

Etamax and FACES, etc. In fact, these are the things you will look back and smile at.

Sharing few of my thoughts: Keep learning from your fellow students and teachers. Learn with an open mind and heart. Don't be afraid to ask for help when you feel stuck because fear is the greatest enemy of learning. Make sure to have as many enriching learning experiences as you can. Because

the best takeaways during this time will help you be future ready.

Not just academics, but a holistic development is what you should focus on. There are good number of technical and cultural clubs in our college that help you shape your interests and I would strongly recommend each one of you to be a part of at least one club or make sure you take part in fests
where you can nurture your inner talent, meet like-minded people which can even help in turning your passion into your career or maybe entrepreneurships. The possibilities are endless! Make the
most of these years you spend in college. You will be amazed by the transition you have made as individuals once you move out of college.
Once you visit Agnels as an ex student, trust me on this, you will get goosebumps the moment you step inside the college gate. Especially if you visit college with your classmates, you wont even feel
like leaving the campus without meeting all your teachers and sitting in the foyer for some time.
Apart from social media, the platform named FCRIT Alma Connect will always help you stay in touch with college, its activities and alumni meet events.
I am thankful to all my teachers, mentors and friends who have helped me at all times. My warm regards to the entire Agnels family and I wish continued success to the institution.

Simran Rajput
(Batch of 2017)

Heyy Agnelites!

I want to begin by saying that my parents were always trying to get me into Agnels since my kindergarten days but the lottery system, stood in their way.
We tried again in junior college and I missed out in admission in the computer branch by just ONE mark.
When I finally got into Agnels in the last phase of my education, we celebrated like anything!
Dreams do come true!
And then in college I learned the most important trait everyone should possess - Discipline.
In a corporate world I have been able to apply this trait regularly - Be it submitting a task on time or arrive before time for a meeting.
I don't think there is any other college that can train students as well as Agnels does!
Agnels has given me a platform and an opportunity to land on my feet in my dream company for which I will always be grateful!
I will always cherish the GOOD OLD DAYS!

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