

Fr. Conceicao Rodrigues Institute of Technology

ZEPHYR

FROM THE HEAD OF THE DEPARTMENT

Dr. Lata Ragha Head of the Department, Computer Engineering



The essence of knowledge lies in a spirit of creative thinking, expression and experimentation. In this regard the Department magazine is a perfect platform for students to think, reflect, create and innovate in a multitude of languages. Writing articles for the magazine also improves the communication skills. The magazine is an excellent platform for the budding engineers to bring out their hidden talents and indeed a precious document that preserves the words of talented students. It is a significant milestone in their creative journeys and inspires them to aspire higher.

The department magazine, "ZEPHYR" for the year 2020-2021, helps to showcase the activities that are happening in the department. It provides a platform for exposing the merits and academic achievements of the students. In addition to the numerous achievements of the department this is yet another milestone in the cocurricular 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 current technological advancements and provide 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

FACULTY DETAILS



STUDENT ACTIVITIES



ARTICLES



CREATIVE SECTION





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 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 through 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

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 Ph.D. (Comp)

Prof. &HOD



Mrs. Kiruthika M. Ph.D. (Comp)

Asst. Prof.



Mr Amroz Siddiqui M.Tech (Comp)

Asst. Prof.



Mrs. Smita Dange M.Tech (Comp)

Asst. Prof.



Mrs. Shweta Tripathi M.Tech (Comp) Asst. Prof.



Mrs. Rakhi Kalantri M.E (Comp) Asst. Prof.



Ms. Shagufta Rajguru M.E (Comp) Asst. Prof.



Mrs.Kavita Shelke

M.E (Comp)

Asst. Prof.



Mrs. G. Dakshayani M.E (Comp) Asst. Prof.



Mr. Mritunjay Ojha M.E (Comp) **Asst. Prof.**





Mr. Rahul Jadhav M.E (Comp)

Asst. Prof.



Ms. Padmashri N M.E (Comp)

Asst. Prof.



Ms. Suvarna Bhatsangare M.E (Comp)

Asst. Prof.

FCRIT

DEVELOPMENT OF NEED BASED PROJECTS

Sr No.	Title of the Project	External / In-house	Status		
	202	0 - 2021			
1.	e-conf: A Conference Management Tool Maintenance	In-house	Completed		
	201	9 - 2020			
1.	Minor Research Project	External (Mumbai University)	Completed		
2.	Software Development for Exam Cell	In-house	Completed		
3.	Online Exam conduction Software	External (Mumbai University)	Completed		
	2018 - 2019				
1.	Placement Portal	In-house	Completed		
2.	Development of Institute Website & Maintenance	In-house	Completed		
	201	7 - 2018			
1.	e-conf: A Conference Management Tool	In-house	Completed		
2.	Stipend approval system	In-house	Completed		
3.	Students Registration and payment system	In-house	Completed		
	201	6 - 2017			
1.	Academic Performance Monitoring System and Students Portal	In-house	Completed		
2.	Development of Institute Website & Maintenance	In-house	Completed		
3.	Exam cell System	In-house	Completed		
4.	Library Management System	In-house	Completed		

CONFERENCE PUBLICATIONS

Sr. No.	Name of the Faculty	Title of the paper	Details of Publication	Indexing
			2020-21	
1.	Dr. Lata Ragha	Script Scanner: Handwritten Text Recognition App.	International Conference on AdvancedTechnology,SustainabilityandManagement(IATSM21)SushantUniversity Gurugram May 27-272021	
2.	Ms. Smita D.	A Broad Perspective On Integrating Internet of Things with Block chain	5th InternationalConferenceonComputing,Communication&Security(ICCCS-2020)organized by IndianInstitute of Technology,Patna on October14-16th 2020	IEEE Xplore
3.	Mr. Amroz S	Test case Recommendation for regression with Named Entity Recognition for test step prediction	4th Biennial International Conference on Nascent Technologies in Engineering ICNTE2021 January 15-16th 2021	IEEE Xplore
4.	Ms. Sandhya P	Performance Analysis of Optimizers for Plant Disease Classification using Convolutional Neural Networks	4th Biennial International Conference on Nascent Technologies in Engineering ICNTE2021 January 15-16th 2021	IEEE Xplore
5.	Ms.Rakhi K	Smart Campus: A modern approach for enriching the campus experience	International Conference "Latest Trends in Civil, Mechanical and Electrical Engineering" (LTCMEE- 2021), April 12-13, 2021 Maulana Azad National Institute of Technology, Bhopal.	
6.	Ms. Shagufta R	Smart Campus: A modern approach for enriching the campus experience	International Conference "Latest Trends in Civil, Mechanical and Electrical Engineering" (LTCMEE- 2021), April 12-13, 2021 Maulana Azad National Institute of Technology, Bhopal.	
7.	Mr. Mritunjay O.	Detection of Retinal Disease- BRVO	International E-Conference on Advances in Information Technology and Research" ICAITR-2021 organized by Vidyalankar Institute of Technology, Wadala, Mumbai, on May 31-June 1, 202	

JOURNAL PUBLICATIONS

Sr. No	Name of the Faculty	Title of the paper	Details of Publication	Indexin g
			2020-21	
	Mr . Amroz S.	Artificial Intelligence Surveillance System	International Journal for Science and Advance Research in Technology Volume 7, Issue 5 in May 2021 PAPER ID: IJSARTV7I547729	
1		Real-Time WebRTC based Mobile Surveillance System	International Journal of Engineering and Management Research (IJEMR) Volume-11, Issue-3(June 2021) e-ISSN: 2250-0758 p-ISSN: 2394-6962	
2	Mrs. Smita Dange	Intelligent Lunar Landing Site Recommender	International Journal of Engineering and Management Research e-ISSN: 2250-0758 p-ISSN: 2394-6962 Volume-11, Issue-2 (April 2021) www.ijemr.net https://doi.org/10.31033/ijemr.11.2.26	
3	Mrs.Rakhi K.	Eye(I) Still Know! –An App for the Blind Built using Web and Al	International Journal of Engineering and Management Research (IJEMR) Volume -11, Issue-2 (April 2021) ISSN: 2250-0758 p-ISSN: 2394-6962 https://doi.org/10.31033/ijemr.11.2. 31	
4	Mrs. Kavita Shelke	Quick Park: An Effective Parking System	International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE) Indexed by Microsoft Academic, Google Scholar, Mendeley, NAAS Accredited Science Journal	Thomso n Reuters ID I-8645-2 017
E	Mrs. Padmashri	Twitter Bot Detection	International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE) Vol. 10, Issue 4, April 2021 ISSN (Online) 2278-1021ISSN (Print) 2319-5940 DOI 10.17148/IJARCCE.2021.10417	
2	N.	Gardening for You: A Smart Gardening Tool	International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE) Vol. 10, Issue 4, April 2021 ISSN (Online) 2278-1021 ISSN (Print) 2319-5940 DOI 10.17148/IJARCCE.2021.10422	

PUBLICATIONS (Till Date)

Types of	No. of papers published					
publications	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017	
Conferences	07	14	16	08	04	
Journals	07	09	06	13	13	
Total Publications	14	23	22	21	17	

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STUDENT ACTIVITIES

STUDENT PUBLICATIONS

Sr.	Student Name	Paper Title	Details
No			
•	Sharran Labhastrong	Derformenen Analysis	th Biannial Intermetional Conference
1.	Soumva Haridas	of Optimizers for	on Nascent Technologies in Engineering
	Rivali Panmand	Plant Disease	ICNTE-2021 January 15-16th 2021
	Rutuja Deshpande	Classification using	101012-2021 Validary 15-1011 2021
	Piyush Kolte	Convolutional Neural	
	-	Networks	
2.	Alistair Michael Baretto	Analysis of	4th Biennial International Conference
	Raj Sunil Salvi	Dimensional	on Nascent Technologies in Engineering
	Shreyas Rajesh Labhsetwar	Influence of	ICNTE-2021 January 15-16th 2021
	Piyush Arvind Kolte	Convolutional Neural	
	Veerasai Suoramaniam Veelsatash	Historythologian	
	Venkalesn	Cancer Classification	
3.	Rai Sunil Salvi	Study on Transfer	4th Biennial International Conference
	Shreyas Rajesh Labhsetwar	Learning for Diabetic	on Nascent Technologies in Engineering
	Piyush Arvind Kolte	Retinopathy	ICNTE-2021 January 15-16th 2021
	Veerasai Subramaniam	Classification	-
	Venkatesh		
_	Alistair Michael Baretto	T .	
4.	Sebin Benny John	lest case	4th Biennial International Conference
	Divyansh Gaur	Recommendation for	ICNTE 2021 January 15, 16th 2021
		Named Entity	10101E-2021 January 15-1001 2021
		Recognition for test	
		step prediction	
5.	Melvin Thankachan	Smart Campus: A	International Conference "Latest Trends
	Vikas Tripathi	modern approach for	in Civil, Mechanical and Electrical
	Kezia Thomas K	enriching the campus	Engineering" (LTCMEE- 2021), April
		experience	12-13, 2021 Maulana Azad National
6	Chinmay Chaudhari	Onick Park: An	Institute Of Technology, Bhopai.
v.	Alan D'souza	Effective Parking	Research in Computer and
	Qais Nadkar	System	Communication Engineering
	~	-	(IJARCCE) Indexed by Microsoft
			Academic, Google Scholar, Mendeley,
			NAAS Accredited Science Journal
			Thomson Reuters ID I-8645-2017
7.	Anthony Thomas	Intelligent Lunar	International Journal of Engineering
	Digina Derose	Landing Site	and Management Research e-ISSN:
	Sahaya Cyril	Recommender	2250-0758 p-ISSN: 2394-6962
			Volume-11, Issue-2 (April 2021)
			www.ijemr.net
8	Tison M Johnson	Twitter Bot Detection	International Journal of Advanced
0.	Prince John Thekkadavil	Twitter Bot Detection	Research in Computer and
	Mansi D Madne		Communication Engineering
	Athary Nilesh Shinde		
			(IJARCCE) Vol. 10, Issue 4. April 2021
			ISSN (Online) 2278-1021
			ISSN (Print) 2319-5940 DOI
			10.17148/IJARCCE.2021.10417

STUDENT PUBLICATIONS

9.	Romik Amipara Elson Pinto Sebi Samuel	Gardening for You: A Smart Gardening Tool	International Journal of Advanced Research in Computer and Communication Engineering
	Seer Samber	1001	(IJARCCE) Vol. 10, Issue 4, April 2021 ISSN (Online) 2278-1021 ISSN (Print) 2319-5940 DOI 10.17148/IJARCCE.2021.10422
10.	Akshata Sangwai Shriya Deshmukh Vardaan Sathe Rishika Agarwal	Eye(I) Still Know! -An App for the Blind Built using Web and AI	International Journal of Engineering and Management Research (IJEMR) Volume -11, Issue-2 (April 2021) ISSN: 2250- 0758 p-ISSN: 2394-6962 https://doi.org/10.31033/ijemr.11.2. 31
11.	Nixon Paulson, Jefin Francis Christy Mathew	Red-Teaming Labs	India's First Digital Forensics(4N6) Publication Volume: III Issue: II, https://doi.org/10.46293/4n6/2021.03.02.1 0
12.	Benedict William Raj Prateesh R K Nikhil Tatpati	Artificial Intelligence Surveillance System	International Journal for Science and Advance Research in Technology Volume 7, Issue 5 in May 2021 PAPER ID: IJSARTV7I547729
13.	Alistair Baretto Veerasai Subramaniam Noel Pudussery	Real-Time WebRTC based Mobile Surveillance System	International Journal of Engineering and Management Research (IJEMR) Volume-11, Issue-3(June 2021) e-ISSN: 2250-0758 p-ISSN: 2394-6962
14.	Jennifer G. Fernandes Anshal Antony Devansh Sharma	Detection of Retinal Disease- BRVO	International E-Conference on Advances in Information Technology and Research" ICAITR-2021 organized by Vidyalankar Institute of Technology, Wadala, Mumbai, on May 31-June 1, 202
15.	Advait Gogte Shreeraj Pawar Selin Saral Ponraj Vaishnavi Jadhav	Deep Artificial Neural Network based Clear Audio	National Level students conference
16.	Angela Infanta Ramesh Ashish Dinesh Singh Battina Babykutty	Implementation of Implantation-Stagger Measuring Unit using Image Processing	International Journal of Engineering and Management Research (IJEMR) , e-ISSN: 2250-0758 p-ISSN: 2394-6962 Volume-11, Issue-3 (June 2021) https://doi.org/10.31033/ijemr.11.3.5
17.	Sanchita Mehetre Kirti Kamath Shalakha Shere	Roommate Finder	International Journal of Advance Research, Ideas and Innovations in Technology, (Volume 7, Issue 3 - V7I3-1720) ISSN: 2454-132X Impact Factor: 6.078Available online at: https://www.ijariit.com
18.	Riyali Panmand Ancilla Menezes Kshitija More	Script Scanner: Handwritten Text Recognition App.	International Conference on AdvancedTechnology,SustainabilityManagement(IATSM21)SushantUniversity Gurugram May 27-27,2021
al Number of Students 62			

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STUDENT ACHIEVEMENTS

SUMMER PROJECT 2020

Position	Project Title	Team Members
	Pictionary: Doodle Drawing and Guessing Game	Dange Afrin Gupta Ishika Kotarkar Anuj
First	Driver Drowsiness Detection Android App	Serana Raju Mullick Sudishka Riya Mol Raji Sherin Shibu
	EMAIL INSIGHTS	B. Shriram Athreya Pulhani Rachit Kadu Nitish Mehta Shivam Mansingh
Second	Pneumonia detection	Dany Poly Joseph Benjamin Gupta Pranay Mukesh

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STUDENT ACHIEVEMENTS

SUMMER PROJECT 2020

Position

Project Title

Team Members

Music Recommendation using FER Gole Siddhant Dnyanesh Bansal Sahil Rakesh Bhagdikar Soumtira Deshmukh Parth

Third

Black and White Image Colorization Kurian Sanmith Binsu Goel Eshan Raghuvanshi Ayush

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Sr.No	Student Name(s)	Title	Details with position
1	Trevor D'costa Christopher John Edwin Vincent Pratik Dhumal Yashraj Mane For "Fitness Freak"	Hack-lt-Out	Second prize Details: Won cash prize of Rs 10,000
2	Darren Gonsalves Atharva Tembhe Aftab Khan Richie Kishan For " OCTRO:Emotion Based Music Player"	Avishkar 2021	Second Prize Details: Won cash prize of ₹1000 By SCOE conducted on 30th April 2021
3	Darren Gonsalves Atharva Tembhe Aftab Khan Richie Kishan For " OCTRO:Emotion Based Music Player	Prastut	Second Prize Details: Won cash prize of ₹1000 By SCOE on 17th April 2021

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Sr.No	Student Name(s)	Title	Details with position
4	Aditya Unnikrishnan. Abhishek Choudhary Gabriel Rajendran Gregory Biju For "CryptoTSEC"	TSEC Hacks 2021	Third Prize Details: Won cash prize of ₹2500 By Thadomal Shahani Engineering College, Bandra on 26 March - 28 March 2021
5	Serena Raju For "Business and Government Decision Optimization using Twitter Sentiment Analysis"	BuildwithAl Hack 2020	Second Prize Details: Won cash prize of AUD \$500 (~Rs. 27,000/-) By HackMakers
6	Serena Raju For "COVID-19 Healthcare Telegram Chatbot "	Delhi Hacks 1.0	Best Social Hack Details: Won cash prize of ₹6,000 By Script Foundation

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Sr.No	Student Name(s)	Title	Details with position
7	Angela Ramesh, Battina Babykutty, Ashish Singh For "Implementation of Implantation and Stagger Measuring Unit"	DJASCII 2021 State Level Project Competition	First Prize Details: Won cash prize of ₹10,000 By DJ Sanghvi College of Engineering
8	Angela Ramesh, Battina Babykutty, Ashish Singh For "Implementation of Implantation and Stagger Measuring Unit"	Vishwaniketan's National Level Project Competition	First Prize Details: Won cash prize of ₹21,000 By VIMEET
9	Afrin Dange , Ishika Gupta For "Pictionary: Doodle Draw And Guess"	Game Jam 1.0	First Prize Details:150 USD \$150 (~Rs. 11,000/-) By HackerEarth

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Sr.No	Student Name(s)	Title	Details with position
10	Jerin John Mathew Shawn John	Etamax - Technical Treasure Hunt	By FCRIT,Vashi
11	Merwin Samuel	Etamax - QuickType	By FCRIT,Vashi
12	Gauri Patil	Etamax Mehendi Competition	By FCRIT,Vashi
13	Gauri Patil	Miss Etamax 2021	By FCRIT,Vashi



COMPETITIVE EXAM RESULTS



FCRIT

CAMPUS PLACEMENT

SR.NO	COMPANY NAME	NO. OF OFFERS	PAY PACKAGE
1	TCS	23	3.36LPA/ 7LPA
2	LTI	20	5LPA/ 6.5 LPA
3	Persistent	1	4.41 LPA
4	JIO	2	3.5 LPA
5	Xoriant	5	4.5 LPA
6	Protegrity	1	4.5 LPA
7	ObjectEdge	1	5 LPA
8	Cognizant	5	4 LPA
9	HCL	2	3.5 LPA
10	L&T FinnSec	1	6 LPA
11	L&T	1	5.5 LPA
12	Mirraw	1	3.6 LPA
13	Quality Kiosk	1	3 LPA

Avg pay package: 4.62LPA Total no. of offers: 65 This includes multiple offers where students opted for higher package Total students placed: 41

FCRIT

TCS(15)



ANSHAL ANTONY ANCHAL CHIRMAL RUTJUA DESHPANDE EVAN VELAGALETI





SRIVIDYA INAMPUDI SURESHKUMAR JHA SAIRAM MADDALA



PRATEESH RK



RAJ SALVI



ARUSHI SINHA



VIKAS TRIPATHI



ELROY GOMES



SELIN SARAL



QAIS NADKAR

Pay Package: 3.36/7 LPA



LTI(14)









BENEDICT RAJ

CHRISTY MATHEW JENNIFER FERNANDES

JISON M



RUTVIK KOKATE



LINDA JOHN



ELSON PINTO



NOEL PUDUSSERY



RONI LEONITA







SHALU SAROJ MELVIN THANKACHAN



PRINCE JOHN



VEERASAI SUBRAMANIAM

Pay Package: 5/6.5 LPA



PERSISTENT(1)



омкая jadhav Pay Package: 4.41 LPA

RELIANCE JIO(2)



ALISTAIR BARETTO



PRAJYOT DURGAVALE

Pay Package: 3.5LPA

XORIANT(2)



AISHWARYA MATHEW



PALLAVI BANAGAR

Pay Package: 4.5 LPA

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PROTEGRITY(1)



NIXON PAULSON Pay Package: 4.5 LPA

OBJECTEDGE(1)



JEFIN FRANCIS

Pay Package: 5 LPA

COGNIZANT(1)



DEV SAHOO

Pay Package: 4 LPA

FCRIT

HCL(2)





ANCILLA MENEZES

MANSI MADNE

Pay Package: 3.5 LPA

QUALITY KIOSK(1)



ATHARVA SAWANT

Pay Package: 3 LPA

$L \ \mathcal{C} T FINSEC(1)$



SOUMYA HARIDAS

Pay Package: 6 LPA

FCRIT

FINAL YEAR (2017-2021)



THIRD YEAR (2018-2022)



FCRIT

SECOND YEAR (2019-2023)



FCRIT

CSI ACTIVITIES

"THE MIND IS NOT A VESSEL TO BE FILLED, BUT A FIRE TO BE KINDLED" - PLUTARCH

The Department of Computer Engineering firmly believes in the holistic development of its students. To hone the skills of the students and facilitate them with a window to the corporate world the Department of Computer Engineering in concomitance with CSI Chapter of FCRIT Vashi organised several events for the students.

Sr. No	CSI Event/ Workshop	Winner(s)/Speaker(s)	Convener/ Co-ordinators
1	Clinical Trials - Planning, Governance, and Conduct (Webinar)	Ms. Deepti Goel (Project management professional, Pharmacologist)	Ms. Shweta Tripathi Student Coordinators: Anuj Kotarkar, Yukta Thakur
2	Cryptex Workshop 2020	Hybrid App Development with Flutter Nitish Kadu Rachit Pulhani Shivam Mehta Shriram Athreya Computer Vision Serena Raju Cyber Security Jerin John Shreya Chavan Battina Babykutty Python Afrin Dange Sanmith Kurian	Ms. Shagufta Rajguru

CSI ACTIVITIES





Clinical Trials - Planning, Governance, and Conduct



Hybrid App Development with Flutter



Computer Vision



Python



Cyber Security


3	ACESS 2020	Convergence of Emerging Technologies, Opportunities and Challenges of Industry Revolution 4.0 and Govt. Of India 4.0 Dr. Charru Malhotra Environmental sustainability and Awareness Mr. Vijay Kumar	Ms. Shweta Tripathi
4	Summer Project	First Prize Serena Raju Mullick Sudiksha Riya Mol Raji Sherin Shibu for "Driver Drowsiness Detection Android App"	
		Second Prize Dany Poly Joseph Benjamin Gupta Pranay Mukesh Pinto Aldric Ivan for "Pneumonia Detection"	
		Third Prize Gole Sidddhant Dnyanesh Bansal Sahil Rakesh Deshmukh Parth for "Music Recommendation using FER"	



ACESS 2020



Summer Project Winners

5	Departmental Webinar	Blockchain Ms. Shilpa Karkeraa	
		Project Management and Finance Dr. Dhirendra Gautam	Ms. Shweta Tripathi
		Higher Studies during Pandemic and Studying Abroad Mr. Pawan and Ms. Abha (Jamboree Institute)	



Blockchain





Project Management and Finance



Higher Studies during Pandemic and Studying Abroad

ARTICLES

OPEN SOURCE INTELLIGENCE USING GOOGLE

Open Source Intelligence (OSINT)



"Data" is considered to be one of the most vital things present in the technological industry. It is responsible for all the information available on the Internet and other forums. The World Wide Web acts as a humongous repository of such information about all things present on this planet. It's a boon for us because it opens an entirely different world to analyze and interpret information and knowledge using such data.

So, what if I told you that you can find all information about a person just by using his name, interesting isn't it? What if you were able to find vulnerable and confidential pages of a website by just typing a few keywords? All answers lead to one phrase - "Open Source Intelligence (OSINT)".

Open Source Intelligence is a methodology used for collecting, analyzing, and making decisions about the data present in the publicly available sources to be used in an intelligence context. In Simpler Terms, using available data to find out valuable information which would be purposeful for a given task. The term was coined by the US Director of National Intelligence and since then it is widely used by actors like the Intelligence, the Press, and most stressed upon by the Information Security (Cyber Crime) Specialists and Hackers in general. The Sources of the OSINT are usually from places like Media, the internet, public government data, academic publications, and grey literature.

One of the major sources for Open Source Intelligence is the web search engines like Google, Yahoo, DuckDuckGo, etc. In this article, we will majorly focus on OSINT using Google. In this article, we will cover the various methods as follows:-

A} GOOGLE DORKING

"Google Dorking," also known as "Google hacking", is a technique used by newsrooms, investigative organizations, security auditors as well as tech-savvy criminals to query various search engines for information hidden on public websites and vulnerabilities

exposed by public servers. Dorking is a way of using search engines to their full capacity to penetrate web-based services to depths that are not necessarily visible at first.

Let's take an example of a dork,

password filetype: pdf site: Any website of your choice

The above dork checks out for any leaked password files present as a PDF format is any for the provided site. Once/If found is considered a Sensitive Data Exposure vulnerability, one of the top 10 vulnerabilities suggested by OWASP. Info:[text],site: [text],insite:[text],etc are the various other Dorking techniques used to find important information about a subject.

This is quite useful for scenarios where you want to know specific information about a subject through various forums and also useful for external pentests in general. The GHDB (Google Hacking Database) is a huge repository of such dorks which are related to every query present based on filetypes, subdomains, password text files, log files, etc.

Let us take an example of one more dorking techniques in the GHDB repository:*intitle:"Icecast Streaming Media Server"*

1} The "intitle" checks out for similar marked words present in the double quotes and creates the results for the same

2} The Icecast Streaming Media Service has a few vulnerabilities based on the Remote Code Execution and Buffer Overflow Vulnerabilities (found out only on specific versions).

3} So, executing this dork which checks for any site which uses this service, and if the Icecast version is vulnerable, the hackers can gain access to the server using the necessary exploits.





B} REVERSE IMAGE SEARCH

Reverse image search is a content-based image retrieval (CBIR) query technique that involves providing the CBIR system with a sample image that it will then base its search upon; in terms of information retrieval, the sample image is what formulates a search query. In particular, reverse image search is characterized by a lack of search terms.

This effectively removes the need for a user to guess at keywords or terms that may or may not return a correct result. A reverse image search also allows users to discover content that is related to a specific sample image, the popularity of an image, and discover manipulated versions and derivative works.

Let's take an example of a profile image, consider that you have received it through your mail id or social media sites. In order to check whether the image is stock or not, we can use google image search and check for any similar data. Once done we can check out its metadata to find the necessary information like geolocation, image source, camera taken, date and time, etc

The other most famous reverse image search engine is Tineye Reverse Image Search and Bing Image search.

Practical uses for reverse image search include:

- Locating the source information for an image.
- Searching for plagiarized content.
- Ensuring compliance with copyright regulations.
- Finding information about unidentified products and other objects.
- Debunking faked images.
- Finding higher resolution versions of images.

	Google	
Search by image Search Corgia with an image instead of text. Try tragging an image here		×
Paste Image URL	Upload an image 💷	
Browse No file s	Sectod.	



C} GMAIL OSINT



Nowadays, people generally share their email ids on their social platforms and public forums as a part of creating professional connections and also initiating formal conversions with other people on the internet. But, little do they know about how much of a person can be known just by using this email. Let's stress this topic further to understand the different terminologies used.

Each Google Email ID consists of a value known as the "Gmail account-id" which is unique for each and every email id present. This Google Account ID Number is usually 21 digits long and starts with a 1. This can be easily obtained from a user using the following steps. Let's work it out in a more practical way by taking an example!!!

"We are looking for a person's last location, where a message was left. We need to find out what this message is! We only have the email: saramedsoncruz@gmail.com"

Now for this, there is a tool called Epios email lookup which can be used to find the Account ID of that Gmail account. After adding the email id it identifies the Account ID and the necessary links.

Email : saramedsoncruz@gmail.com
Name : Flag Watcher
Last Update / 2021-05-13 07:58:48 S = PIEOS
Maps https://www.google.com/maps/contrib/1173953
Photos https://get.google.com/albumarchive/117395 //albums/profile-photos
Calendar : https://calendar.google.com/calendar/htmlembed?srcxsaramedsoncruz@gmail.com

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As you can see in the image using this Gmail account id we are able to access the recently visited locations of that person using google maps, the events in his/her calendar, and even publicly posted images, surprising isn't it? Now by using the Google maps link we are able to find the message in the reviews section!

Museum of Art of Silo Paulo As Art maseum Bale Arts MAX OCTARS	by a florde of people asking for change, but be careful it is not always just 'asking', unfortunately there are criminals who love to take advantage of that distracts tourist taking photos or even that kind person who is provide to open be walled to down a change. There is	
Fiag Watcher	little care.	
I (Therebailed by Google) The formula for Carbonital in by far one of the mean phase phase solution in the capital phase phase wide to the present in the capital Boking by your vide to the leaf minimized your annual one are. It is a delight for lowers of religious buildings. On the buildings to annumping on the mouth alters even more magnitud shape	-1 (LW45,DJ.S.C.O.V.3,R.3,D)	

How to prevent yourself from being OSINT'ed? Answer: Simple 3 steps

Step 1} Hack Yourself!

Have you ever googled yourself? Try to gather information on yourself using OSINT techniques. Start somewhere, perhaps the most common username you use to access this website, and move on from there. There are various tools available to search for usernames on the internet. You'll be able to find where you've signed up with that alias. Many times, it will be in places you don't even remember signing up at. Read through the posts and see how much information about you is given out. In the meanwhile, start making a profile of yourself based on the information you've found. You'll be surprised what you end up with for each post you might've made or replied to will have something unique to tell about you.

Step 2} Recalibrate

Once you've gathered a good amount of information about yourself, you need to start evaluating what you want everyone to know, what should be seen with limited access (friends on Facebook, connections on LinkedIn, etc), and what is up there but really shouldn't have been. Once you have this, you can backtrack, find these sources and tidy them up. You can also get a close friend to do the same recon on you to get a different perspective, maybe she finds something different about you.

Step 3} Control

Some people like sharing and interacting with the community, posting things, tweeting their opinions, sharing experiences. And this is fine, as long as you know what you're doing and are okay with it. **The internet is absolute, once it's up there, if you forget about it, it's going to be up there forever**. So know that if you post something, don't be surprised if someone you've never met knows a lot about you. Even if it is a private forum, share assuming everyone is watching.

There are even more ways that a person can crawl through the internet to find information. One can always visit sites like osintframework.com to understand more on this subject

-Jerin John Mathew Semester 6



FCRIT

ADLINK LAUNCHES ITS CM5-P1000 MODULE WITH GRAPHICS PROCESSING CAPABILITIES FROM NVIDIA



ADLINK Technology Inc., a global pioneer in edge computing, announced the release of the CM5-P1000 module, an industry-first solution for AI-enabled mission-critical applications. This module comes in a PCIe/104 Type 1 format, with the measurements 116 x 96mm. It is designed to meet the size, weight, and power (SWaP) requirements of aerospace and defense applications. ADLINK benefits from unparalleled access to sophisticated processing technologies as well as the higher echelons of technical assistance as an NVIDIA Elite Partner.

"Engineers serving the aerospace and defense sector need access to embedded technology that offers a combination of elevated performance, small form factor and ongoing reliability. Long-term supply chain continuity must also be totally assured," remarked Eric Kao, the General Manager of ADLINK's Networking, Communication & Public Sector business unit. "The CM5-P1000 gives our customers the inherent design flexibility of a modular approach, plus exceptional degrees of ruggedness. In addition, this module underlines the continued importance that ADLINK sees in PC/104 and our lasting commitment to this format."

Let's dive into the peripherals of the CM5-P1000 module

This PC/104 module has 640 CUDA cores and can achieve 1.8 TFLOPS performance thanks to the inclusion of an NVIDIA Quadro P1000 GPU. It has 4GB of integrated GDDR5 memory with a 128-bit memory width and a maximum bandwidth of 96GB/s. The CM5-P1000 features a 16-lane PCIe Gen3 interface and four ultra-high definition (UHD) DisplayPort outputs.

The module provides customers with a high level of durability and helps sustain uptime in tough working situations, in addition to the inherent design flexibility of a modular approach. It can also withstand high altitudes, harsh temperatures, shocks, and vibrations. The module operates in a temperature range of -40°C to +85°C and can resist humidity levels of up to 96%. It can be used with either Windows 10 or Linux 64-bit operating systems.\\



ADLINK used its profound expertise and broad experience in the creation of the new product as one of the pioneer firms of PC/104 technology. The module's compact size, energy efficient, and high-performance processing power makes it appropriate for a variety of applications, including radars, intelligence, surveillance, and reconnaissance (ISR), unmanned ground vehicles (UGV), unmanned aerial vehicles (UAV), missile systems, and so on. It can also be utilised in factory automation and process control, among other things.

-Jennifer James Semester 6

WHY WILL BLOCKCHAIN RULE THE WORLD ?

In a world where information is the key, handling of the information is the heart of every field. There can exist a situation where information security is not guaranteed in certain fields and such information is susceptible to manipulation. This is where Blockchain helps in maintaining information security and prevents manipulation of data.

What is Blockchain?

It is a chronologically recorded distributed ledger. Initially started out as the backbone to cryptocurrencies like Bitcoin and Ethereum, it is garnering attention of many enterprises, media, start-ups and financial institutions. Blockchain has the potential to handle information democratically, ensures transparency, efficiency and most importantly, it promotes information security.

A Blockchain in layman terms is described as a collection of **blocks** interlinked to each other on a single **chain**. We can understand this concept better with the help of Linked List. In a linked list, the nodes have a head and a tail and each of these is connected to another node containing similar data. Similarly, each of the blocks is linked to each other with the help of a unique ID known as the hash. This hash value is produced from the data present in that block. A typical block stores the required data, the timestamp of when the block was added, the block's hash value and the hash value of the previous block. This ensures the blocks are connected to each other.



Why is blockchain so trustworthy?

Blockchain is secure due to its immutable nature which prevents data manipulation. This exists due to reproduction of a new hash in any change of data which violates the link between each chain and it is violated. Additionally, use of cryptography techniques for hashing data makes it very difficult to reverse engineer the data from it's hash. Blockchain also promotes trust due to its decentralized nature. Any data going into the blockchain is available to others for anyone to view, thus making processes transparent. This can be imagined as some data enclosed in a glass box where we can view the data also promotes public consensus meaning every participant in this blockchain has every right to take part in deciding which node gets the ownership of which block. This process is called mining. This also promotes traceability of data which prevents misuse of intellectual properties. Where is it used ?

There are three kinds of blockchain which are used in different levels of applications. Cryptocurrencies, medical records, property records and election records are stored in blockchain which is available to the public. This increases the speed of such processes where manual work takes a long time to complete. This variety of blockchain is termed as public blockchain. There are few blockchain technologies where consensus is limited to certain individuals. These blockchains can be utilized on private companies where access is granted to its employees. This is known as a private blockchain. There are some blockchains which are guasi decentralized and can be given access on request. Supply chain is one of such examples of permissioned blockchain. Supply chain blockchain is utilized to track the life cycle of a product from the date it is manufactured to the day the customer buys it. The customer can find the details of the product on it's blockchain and get the necessary details. Other applications of blockchain involve the use of NFT's (Non Fungible Tokens). NFT's can take the form of any digital asset such as art or music. The ownership to that NFT is stored in the blockchain allowing traceability of that digital asset to its owner.

What applications and programming languages are used to build blockchains? There are quite a few services providing blockchain. Ethereum and Hyperledger are the most famous tools used for building a blockchain. Other programming languages like Python, JavaScript, C++ are also used if anyone wants to build blockchain from scratch.

In conclusion, blockchain has the potential to transition from centralized to decentralized which ensures freedom of speech and expression and also prevents manipulation of data. This also prevents stealing of intellectual property and digital records which are easily accessible in a traditional file system. In the near future, we can see blockchain taking over the domains of information handling and security.

-Aditya Unnikrishnan Semester 4

A SIMPLE GUIDE TO WEB API'S

Have you ever wondered, your favorite application can be logged in using your Google or GitHub or Facebook account is made possible?

The answer is Application Programming Interface.

This is just one common use case.

In this article we will go over what are API's, types of Web API's, the common examples of API's.

What is an API?

An application programming interface (API) is a connection between computers or between computer programs. It is a type of software interface, offering a service to other pieces of software.

Application Programming Interface, simply put, enables IT companies to share their application data & functionality to third party developers, business partners and different departments within their organization. APIs act as the backbone of the data-driven world.

We say binary is the language of a machine, I believe APIs are the means by which they communicate with each other.

APIs also act as a communication medium between the operating system and the applications.

Most APIs are WEB APIs so we will discuss it in detail.

How do WEB APIs work?

APIs sit between an application and the web server, acting as an intermediary layer that processes data transfer between systems.

The general steps of working are:



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- 1. A client application initiates an API call to retrieve information—also known as a *request*. This request is processed from an application to the web server via the API's Uniform Resource Identifier (URI) and includes a request verb, headers, and sometimes, a request body.
- 2. **After receiving a valid request**, the API makes a call to the external program or web server.
- 3. **The server sends a** *response* to the API with the requested information.
- The API transfers the data to the initial requesting application.



Are APIs important?

Yes, APIs have become an integral part of software development. Without them many applications would have limited functionalities.

Some benefits of Web APIs:

• Security:

APIs act as an added layer of protection between the applications server and the data.

APIs provide tokens, signature and Transport Layer Security (TLS) encryption which adds more authenticity to the service.

• Business:

Many organizations have taken up providing valuable digital assets as a business by monetizing their services.

• Productivity:

The statistics obtained by APIs can be used for improving productivity and performance.

Some common uses:

1. Universal Login:

This is a popular use of API which allows users to login to websites by using their facebook, google or github account in a hassle-free manner without filling registration forms. In our day-to-day activities, as a student or developer or a netizen we happen to login into a dozen apps every day. This feature of API allows us to save time.

2. Travel booking comparisons:

Travel booking sites compare thousands of flight details, showcasing the cheapest options for every date and destination. This service is made possible to the users through APIs that allow application developers to access the latest information about availability of hotels and airlines from their respective applications. This feature helps to provide an economic and time saving service to travellers.

One more important term involved with Web APIs is endpoints.

Endpoints are key elements that create interaction of the application with the API. Usually, it is a specific address (for example, https://newssite.com/topnews), by referring to which users can get access to certain features/functions

Types of Web APIs:

1.Open APIs are open-source application programming interfaces that anyone can access with the HTTP protocol. Also known as public APIs, they have defined API endpoints and request and response formats.

eg: An Indian government initiative : Open Government Data (OGD) Platform India

2.Partner APIs are application programming interfaces used by business partners. Typically, developers can access these APIs in self-service mode through a public API developer portal. Still, they will need to complete an onboarding process and get login credentials to access partner APIs.

eg: Stock exchange data: Free Stock APIs in JSON & Excel | Alpha Vantage

3.Internal APIs are private APIs that are not available for users outside of the company and are intended to improve productivity and communication across different internal development teams.

4.Composite APIs combine multiple data or service APIs. These services allow developers to access several endpoints in a single call. Composite APIs are useful in microservices architecture where performing a single task may require information from several sources.

Different types of API protocols:

- **SOAP** (Simple Object Access Protocol) is an API protocol built with XML (Extended Markup language), enabling users to send and receive data through SMTP (emails) and HTTP. This API allows transfer of information between applications that run on different environments or written in different languages.
- **XML-RPC** protocol fully uses XML format for data transfer, while SOAP uses a proprietary XML format. XML-RPC is older. simpler and light weight protocol that uses minimum bandwidth.
- **JSON-RPC** is similar to XML-RPC, the only difference is the format followed for data transfer, the former uses JSON (JavaScript Object Notation) and the latter uses XML.
- **REST** (Representational State Transfer) is a set of web API architecture principles, which means there are no official standards (unlike those with a protocol). To be a REST API (also known as a RESTful API), the interface must adhere to certain architectural constraints. It's possible to build RESTful APIs with SOAP protocols, but the two standards are usually viewed as competing specifications.

-Kaliappan Yadav Semester 4

UNCERTAINITY OF CRYPTOCURRENCIES

Every economics lecture teaches us the three purposes of money: a medium of exchange, a unit of account, and a store of value. The first two purposes are dominated by the traditional currencies, in-short, established currencies have a great starting advantage compared to any competitor, including cryptocurrencies. But the third purpose of having a store of value gives hope to the new competitors. In traditional currencies, banks offer the assurance of assets thereby maintaining a low level of inflation. Cryptocurrency doesn't really give us assurance but that assurance is maintained by the community.

The high volatility is caused due to a change in communal thinking when it comes to cryptocurrencies. This doesn't protect the rest. In the book Essentials of Economics by Gregory Mankiw, he states that it's not the government who regulates the market, but it's the market which regulates itself, creating underlying countervailing regulations. The government only oversees and maintains the negotiations. If that is the case, cryptocurrencies which have a great market cap don't need any regulations from the government. They are self-sustained on their own path, which might not be stable, but would definitely have value depending on communal thinking.

Every research paper based on the hashing rates clearly states that increased hashrates causes an upsurge. Recently, when China and Iran focused on eradication of miners in their region, all the cryptocurrency saw a sudden decline in their prices. Bitcoin fell from 45K\$ to 28K\$ during this period after which it saw a stable market again for the next two days. Looking through the lens of economics this is the demand and supply chain, wherein the supply side of the market is partially controlled by the miners. Governments on the other end of the supply chain for traditional currency, their monetary authorities hold a grip on the value of their currency.

These monetary authorities have an obligation towards protecting the securities of an individual. When markets don't prosper, they have to intervene and provide better opportunities. Cryptocurrency shines here as a government has no control over them, making them merely observers. El Salvador's government has taken up the step to promote the growth of Bitcoin in their country, opening up wallets for them and depositing bitcoin in their wallets. It's quite uncertain how this would affect their overall economy, but they sure have given a green signal to the idea of cryptocurrency.

The biggest risk of cryptocurrency is the injurious use of blockchain technologies, smart contract, to earn private gain based on deception of tokens and Defi, where the gains are only to the creators. Markets must prosper not by the ruin of the minor, but by general roughness, based and observed that the pulverization of profits and dividends must always be guaranteed, in order to maintain the credibility of the system. Governments could in theory stop the generation of ponzi schemes within the cryptocurrencies. While a lot has happened, it is also clear that the cryptocurrency ecosystem continues to evolve, and it's proper place in a broader economy still remains fitful. More adoption and more observation could give cryptocurrency its true stature. Till then, we hope for the involvement of the government in the blockchain technology to protect every other investor.

-Dany Poly Semester 6

CREATIVE SECTION

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ART GALLERY

-Laurel D'souza Semester 4

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-Flavia D'sa Semester 4

DEPARTMENT OF COMPUTER ENGINEERING

ART GALLERY

FCRIT

THE DIGITAL WORLD: A REALITY CLOSER THAN IT APPEARS

Digital market, a reality which each and us knew would come in sooner or later. But this soon and so rapidly? None of us imagined. The pandemic forced the changes humanity was bound to take over the years as a gradual process into a condition for survival and growth, digitalisation of the market space.

No doubt e-commerce was a rising space even during the pre covid times. Data says the net income of Amazon between 2016 and 2020 was nearly \$20 billion and close to \$1 billion till 2016. Yet, there was a huge customer base for physical shops as many people still prefer to buy directly from shops or at least trying a product on the shop before buying online. But coronavirus came and took it all away.

The first question you would be having in your mind is why is the above information being read by you? What purpose does it serve? The answer is, The world may come back to the "old normal" but many things which proved to be more efficient in the online system may never go away now. You and I have now adapted to a lot of things in the past one year and have become more comfortable. The post covid world will be very different, and you need to be prepared for it. From clothes to accessories to other consumer goods and deliverables, each and every one of the above now has a channel of home delivery through online applications, with which people are now getting more and more comfortable. This will call for engineers to develop solutions solving multitude of problems from supply chain management to cybersecurity in e-payments.

The reason I'm writing this article is to tell you, the future engineers, that the world needs you to make the life of the world easier. For this, you need to be problem solvers and out of the box thinkers to execute innovative ideas with ease. There are a multitude of problems brought by the adoption of new systems and the ones who are able to be the solvers of these are the ones who gain out of it, the ones who are remembered.

"The best way to predict the future is to create it"

-Tryambak Gour Semester 8

POVERTY IS NOT JUST A LACK OF MONEY

The renowned Athenian philosopher Socrates believed that one should focus on the pursuit of virtue rather than the pursuit of material wealth to achieve personal growth. Poverty is often described as the one's inability to meet the basic needs required for sustenance. Today the modern world defines poverty in a very capitalistic sense, poverty is associated with monetary assets or a lack thereof. Success has become equivalent to the amount of wealth one collects, the more the merrier. But being poor is more than just one's economical status, it is a state of being insufficient. This definition exceeds the material boundaries set by the world. The Easterlin paradox supports this by stating that after a certain point happiness and income growth stop being mutually exclusive.

Poverty as a state can also be defined as a lack of freedom, a person deprived of making choices independently is considered poor. A life is deemed successful when a person manages to accomplish a set number of tasks, these tasks or objectives need to be defined by the individual themselves. Jean-Paul Sartre in his works focuses extensively on an individual's freedom. According to Sartre in an ideal society individuals have complete autonomy on the projects they want to pursue to attain personal growth, and eventually societal growth. Hindering one's ability to freely choose renders them inferior to a person who has the freedom of choice, thus making them poor. A society which allows complete freedom is rich and successful.

A famous Marathi proverb says that, even the lord of all the three worlds is poor without a mother. Humans are social beings, we thrive on the need to belong and thus social connection becomes an important resource. A lonely man is a poor man. We are enriched by the experiences of others. Humans are containers full of experience and knowledge, acquired through our lifetimes, knowledge spreads when shared otherwise it becomes stale ,trapped in a box. A social connection between two people facilitates the spread of knowledge, they thrive off the experiences of one another, gain new knowledge and thus grow as individuals. Our excellence gets accelerated by our connections with other people; excellence and growth help a person become successful, thus we can concur that we become richer when we interact with the world. Our evolutionary success can be attributed to our deep understanding and need of a community, a lone man could never achieve the amount of success when compared to a man who relied on his community to help him through obstacles. Each and every person is unique in themselves, thus everybody has something new to contribute to the world. We grow richer when we stick together. Therefore, the 'human connection' is what makes us rich and a person deprived of such a connection is ultimately poorer.

Buddhism views poverty as a state of mind. Buddhist philosophy teaches us that a man only needs two meals, a place to rest his head and clothes to protect his body to get through a day, any other needs can be considered just pure luxury and thus unnecessary. We create these unnecessary needs for ourselves and when we are unable to meet those we consider ourselves poor, if we eliminate these expectations we become richer. Over the years, as the world around us advanced, we increased our ambitions and expectations, thus the bar for being rich was set quite high. Retrospectively, we have forgotten that these commodities that we desire are not required to lead a happy life. Attachment to material wealth has made us blind to the simpler joys of life, we spend our entire lives chasing these unreasonable desires that we forget to actually step back and enjoy what we have. Fiscal success cannot be equated to peace of mind. Gautam Buddha himself gave up all material wealth, and became richer whilst living the life of a monk, because for him richness didn't lie in the gold coins of his palace, he considered himself rich because he was free from all material desires and wants, his life wasn't constrained by unwanted needs. His richness came from happiness and peace of mind.

Amartya Sen writes, "Poverty is not just a lack of money, it is not having capabilities to realize one's full potential as a human being". A person who can freely express their thoughts, exercise their freedom of choice, grow with the help of others, and distance oneself from unwanted desires is rich. Richness is not restricted by the economical boundaries set by modern society, it is one's ability to realize, recognize and exercise their full potential as an individual and thus help themselves and the society at large to prosper.

> -Anushka Amte Semester 4

ALUNINA BECTION

KARAN BALKAR BATCH OF 2012

Dear Agnelites,

We all know that a lot has changed ever since the pandemic started but the one thing that continues to grow stronger is our human bond and our desire to extend help and support to others in such tough times.

Fr.CRIT, Vashi has undoubtedly played an important role in inculcating these values in me and am sure each one of us will have his/her story to tell. I would like to thank the college for helping & preparing me to tackle difficult situations in life both personally and professionally. I would also like to extend my gratitude to all the faculty members.

Today, as an integral part of our very own Alumni council (FRAMES), I am so grateful and honored to have been given the opportunity to relive those wonderful days and contribute to the growth and career of the current batch of students. It's my humble request to all Alumni students to please come forward and join us in giving back to our Alma Mater. Let's all be proud "Agnelites".

SALOME PALANI BATCH OF 2020

Dear Agnelites,

I'm grateful to be writing for the alumni section of the departmental magazine today. Its been a year now since I have graduated from FCRIT and have been working at LTI. I am thankful for making it through the campus placements and getting placed at LTI with a good and decent package. I owe many thanks to my alma mater for shaping me into the person I am today, both personally and professionally.

When I joined FCRIT as a fresher in 2016, I was extremely nervous about how things could turn out to be, owing to the college's strict discipline. With time and with the guidance of lovely teachers and friends, this journey of being a fresher gradually became better with every passing day. I am grateful for the teachers that have been instrumental in my learning journey. Coming to my first encounter with the computer department, I remember how naïve I was back then when I first approached Ms. Shweta Tripathi to be part of a coursecum certification on ethical hacking. I am thankful to her for encouraging me. Since then, I have had the opportunity to interact with many seniors and peers who have been humble enough to guide me whenever I needed help or support. From my second year till my final year of computer engineering, I had so many teachers who put in a lot of effort while teaching and guiding different academic activities. Unlike most students, I would like to attend lectures since I always found something new to learn from my teachers. Along with academics, I would explore different domains in technology by myself to pursue my interests, thanks to the world wide web.

My suggestion to fellow Agnelites currently studying engineering is to follow your heart and instincts with every decision you make in your career and learning journey. We all have different paths to pursue. It is easy to get lost, follow along with the crowd, compare and lose oneself. Being sincere and consistent in learning will make you future-ready for the corporate world. I encourage you to participate in different technical, cultural, and management activities hosted in the college with academics. FCRIT has a lot of opportunities to offer that one can utilize to the fullest. For instance, participating in several projects or coding competitions, pursuing hobbies through various cultural and sports events organized during college fests, being a part of the placement cell, social cell, managing events during college fests helps overall personal and professional development.

To conclude writing, I would say that I have been fortunate enough to complete my engineering from FCRIT. I feel nostalgic about remembering every moment spent on the campus with stepping into Agnels till graduating from there. It has been a wonderful experience altogether. I miss everyone and everything in Agnels. Thanks for taking the time and reading till the end! Best wishes to everyone in the Agnel family!

PEARL ALEX BATCH OF 2018

Taking The Leap On jumping ship from computer engineering to creative advertising

If you've had a complicated relationship with science and math in the 11th & 12th standard and still landed at Fr. C. R. I. T. unsure of whether or not you're even cut out for a life as a full-time engineer, or if you're here because an engineering degree was your 'Plan B' so that you have a back-up before leaping into what you really want to do, or if you're here because it was either this or becoming a doctor, then this article might be for you.

I'm what you might call an outlier, having graduated in 2018 with a degree in Computer Engineering but now pursuing a career in digital advertising. So far, I've had the opportunity to work with clients like Fiama by ITC, Amazon Prime Video, HDFC Life Insurance, Asus PCs and Asus ROG, among other projects with L'Oreal Paris, Wipro and London Dairy. This is not to boast but to let you know that a mere few years ago I was lost too and had no answer to the question "where do you see yourself in five years?" I hope my story is a testament to the fact that you too can do whatever you want to do and that it is never too late, whether it's a career that's in film production, sports, writing, fashion, music, food, hotel management, gaming, or an area of tech itself that's super niche.

However, there are some myths we should bust together before you take the *leap*:

#1 I should be pursuing "My Dream Job"

There is a good possibility that your perfect job does not exist. Every job comes with some responsibilities that do not make you jump out of bed in the morning raring to go to work. Even the career you want to pursue has its own culture, skill-set, hierarchy and pyramid that needs scaling and will need time to navigate. For example, saying "I want to make music" may not be as specific as wanting to up-skill at composition, production, scoring films, lyricwriting, mixing & mastering, being an instrumentalist, vocalist, live-performer, or even a professor or researcher around the subject. You might want to do some research to figure out the role your 'dream job' encompasses.

#2 "I should go with my gut and just take the leap"

Sudden plans are only good for long drives to Lonavala. Long before I made the switch, a group of us from college took up projects in writing & filmmaking. During college, I also took up more than one internship that taught me about keeping up with trends, topicality, moment marketing and understanding brands & their target audiences. To this day, I keep in touch with that network of colleagues, nay, friends. Yet, I spent over a year at my oncampus placement - Tata Consultancy Services, where I learnt about organized corporate culture but also took up side gigs that let me travel the country and make music. It was only after I was sure I had enough experience that I took my leap into a more creative role. If your gut says jump, certainly make the jump, but not until you're sure you'll land on your feet.

#3 "Who would hire me? I have no experience in this area."

That may be true - for now. Skills can be learnt online today. Even without experience in the field of your choice, your enthusiasm for the subject & side projects are really what any good employer will look for. Someone in search of true talent will look at your portfolio, not your grades, and especially so if the projects on your portfolio were assigned to you by yourself without any external motivation. So don't worry about getting the job, make sure your enthusiasm for your field is healthy and well-nourished!

#4 "Log kya kahenge?"

This is a big one, but if your gut is sure you intend to take the leap at some point in the future, get ready to have that conversation with your loved ones anyway, delayed as it might be. In my experience, we may be more worried about what society might say of us than it actually cares about what we do with our lives. Besides, we are more useful to the same society when we are doing the responsibility we were optimized to carry out.

It might not surprise you to know that many creative folks I've met on my journey so far have completed studies in not just engineering but finance, economics, statistics, commerce and even law. They will also attest to the fact that those careers are not boring or mechanical by any measure either. Solving complex STEM problems also requires immense creativity. I hope you take the time to appreciate what you have the opportunity to learn while continuing to study broadly. All the best!

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