SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY
Approved by AICTE | Affiliated to VTU, Belagavi |
Accreditedby NAAC
Bengaluru-562157, Karnataka, India

Department of Information Science and Engineering

Department Newsletter

INFOSPARKS

Academic Year - 2018-2019

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01. About the Department

DEPARTMENT VISION	DEPARTMENT MISSION
• To empower students with knowledge and skills to develop the competency in the emerging areas of Information Technology.	• To train the students to have Professional career in IT industry and Higher Education through quality education • To provide outstanding Teaching and Research environment by implementing innovative Teaching and Research Methodologies for Quality Education and Research

PROGRAMME EDUCATIONAL OBJECTIVES(PEO)

PEO1 : Graduates will have Prospective careers in the field of Information Technology.

PEO2 : Graduates will have good Leadership Qualities, Self-Learning abilities and zeal for higher studies and Research.

PEO3 : Graduates will follow Ethical Practices and exhibit high level of Professionalism by participating and addressing Technical, Business and environmental challenges.

PROGRAMME SPECIFIC OUTCOMES(PSO)

PSO 1: Students will have the Knowledge of Software, Hardware, Algorithms, Modelling Networking and Application Development.

PSO 2: Students will be able to Develop and Implement efficient and Secure Algorithms using Appropriate Data Structure and Database.

PSO 3: Students will be able to find better solutions by using Computer Programming Languages.

02 MESSAGE FROM THE HEAD OF THE DEPARTMENT

Welcome to the Department of Information Science and Engineering at Sir.M.Visvesvaraya Institute of Technology, Bengaluru. We started our journey in the year 1999 with an intake of 60 students. Over the last 20 years, we have grown our expertise and competence in the core field of Information Science and Engineering.

We have a strong undergraduate program in Information Science and Engineering and having approved Research Centre by Visvesvaraya Technological University(VTU), Belagavi. At present, the department has 6 Ph.D. Research scholars. Our Department hosts several National Level Conferences, Workshop, Seminars, Guest Lectures, Alumni Lectures, Faculty Development Programme (FDP), Student Development Programmes (SDP), Hackathons periodically.

The main focus of our curriculum is to impart technical knowledge and by using Innovative Teaching Learning methodologies.
We motivate our students to do innovative projects and find a solution to the problems in the real world.

Our Undergraduate students are encouraged to undertake various Technical projects and internships in leading IT Industries and also in Central Government organizations like HAL, BHEL, IITs, etc.. Our department maintains active research groups for carrying out collaborative and interdisciplinary research. We have received Industrial funding for research and we are providing consultancy services.

Our department has a strong Alumni Network and our Department Alumni are working all around the globe. Our Alumni regularly visit the Department and deliver Alumni Lecture to our students. Our students are placed in good companies like Infosys, TCS, Amazon, Accenture, CTS, Robert BOSCH, Wipro, Tech Mahindra, IBM, Cisco, and Societe Generale. More than 10 Percentage of students who are passing out every year are doing their Masters in foreign Universities.

Our Department has a distinguished record in both teaching and research. Faculty members have excellent academic credentials and are highly regarded. Our faculty members serve on the editorial boards of national and international journals, review technical articles for journals on a regular basis, and organize National level conference symposia and conferences.
Best wishes,
Dr.P.VIJAYAKARTHIK M.E., Ph.D.,
Head of the Department and Professor,
Department of Information Science and Engineering,
Sir MVIT, Bangalore

3. DEPARTMENTAL EVENTS

TECHNICAL EVENTS CONDUCTED IN DEPARTMENT

FACULTY DEVELOPMENT PROGRAMS/ STUDENT DEVELOPMENT PROGRAMS ORGANIZED during 2018-2019

Sl.NO	Name of the Event	Title of the Programme	Date of Event Condcuted	Resource Persons	No. of Participants	Convenor for the Programme
1	National Conference	National Conference on Information communication , Controls and computing(NCIC3-2018)	23-May-2018	Mr.Meenakshi Sundaram, Project Manager, Cisco, Bangalore	85	Dr.Sheshappa
2	Seminar	**GATE Awareness Seminar**	14-8-2019	Mr.Gowtham GATE Academy, Malleshwaram, Bangalore	50	Mrs.Shantha Biradhar
3	SDP Programme	**SDP Programme on "Enterprise Computing and opportunities in this space**	29-April-2019	Mr.Poornima Iyengar University Relations Manager. Shankar Purandare, IBM Bangalore	65	Mr.Vijayakumara
4	Workshop	**SDP Programme on "Angular JS"**	26-4-2019	Mr.Jeyanth, Software Engineer, Soceite Generale, Bengaluru	40	Mrs.Smitha Patil Mrs.Padmini
5	Hackathon	**Technical Hackathon**	16-March-2019	Mr.Abishekh Chander, Mr.Sameer shelar, Senior Software Engineer, Value Pitch Technologies Mumbai		Dr.vanipriya CH

6	Faculty Development Programme(FDP)	**Machine Learning**	23 to 25th July, 2018	Mr. Abisekh Kumar Lead Data scientist Sumyog Technologies, Bangalore	70	Dr.Vanipriya CH
7	Student Development Programme(SDP)	**Python Programming**	16th to 18th November,2018	Mr.Suraj Patel Mrs.Shruthi M/S MU SIGMA Pvt, Bangalore	75	Dr.Vanipriya CH
8.	Alumni Lecture	**Python Programming**	21-August-2018	Mr.Amar Krsihna, CEO of Chefling Pvt.LTD, Bangalore	100	Dr.Vanipriya
9.	National Conference	National Conference on Information communication , Controls and computing(NCIC3)	23-May-2018	Mr.Meenakshi Sundaram, Project Manager, Cisco, Bangalore	85	Dr.Sheshappa

We have conducted National Conference on Information communication and Controls (NCIC30-2018) in our Deapartment and the Chief Guest is Mr.Meenakshi Sundaram , country Manager from CISCO, Bangalore

2. We have conducted Student Development Programme (Hackathon) on 12-9-2018. Mr.Sagar Rautray is the resource person from Value pitch Technologies, Mumbai. More than 40 students have participated and students were honored given prizes for solving the Problems by the CEO   Mr.Venkataramana, Value pitch Technologies, Mumbai.

Inauguarion of Hackathon Event conducted in the Department

3. Mr. Anoop Alumni of our department who have graduated from our ISE department during 2015 have delivered Alumni lecture on
"**Database Management Systems on writing SQL "** on **22nd Sep** for 5th semester students**.** Topics covered are Normalization concepts and
Transaction processing in DBMS-ACID Properties.

Mr.Anoop is currently working for Amazon India as Software Engineer and he is inspirational to our ISE Department students

4. A Faculty Development Programme (FDP) was conducted on **" Role of Mentoring in Higher Education"** by Dr. Illango, HOD of
Computer Applications at New Horizon college Bengaluru, on 19th MAY-2017. More than 25 faculties from other departments have
participated and benefited by the Programme. We also received good feedback about this FDP Programme from the participants.

5. Mrs. Ramya Rashmi who is working as Consultant "NTT Data" have delivered a guest Lecture on" **INTORDUCTION TO VIRTUALIZATION AND CLOUD COMPUTING** on **17th April 2017**. It gave an insight of the virtualization concepts and cloud infrastructure, Service Oriented Architecture for 5th and 7th semester students. Total number of students attended the Programme is 50 students.

04. Faculty Achivements

Sl. No.	Name of the Staff Member	Details of the Research papers	Journal/Conference Title	Volume,Issue	ISSN/ISBN
1	Dr.P. VijayaKarthick	An Overview of Mobile Cloud Computing (MCC) and its Applications in Real World	International Journal of Engineering Science and Computing.	Vol.6(7), Jul'2016	
2	Dr.Seshappa SN	Maximize Execution Performance Analysis of Parallel Algorithms over Sequential Using Open MP	International Research Journal of Engineering & Technology,	Vol. 3(9), Sep' 2016	ISSN 2395-0072
3	Mrs. Vanipriya CH	Applications of Sentiment Analysis in Stock Markets	International Journal of Recent Engineering Research and Development (IJRERD)	Volume No. 01-Issue No.03, PP 01-04.	ISSN: 2455-8761
4	MR.Raghav S	An Opinion Mining tool for Mobiles	International Journal of Innovative Science, Engineering & Technology	2016	
5	Mrs.Rashmi Amardeep	Matlab datamining software-sTUDY	International Journal of Recent Innovation in Engineering & Research	If=3.605 Vol 2, Issue 6,June 2017	e-SSN 2456-2084
6	Mrs.Rashmi Amardeep	An Analysis of metaheuristic algorithms for optimization with data clustering in data mining for classification	International Journal of Current advanced Research	July 2016, IF(2015):5.438 Vol 5, Issue 7	ISSN:2319-6505
7	Mrs.Rashmi Amardeep	A Study of Bat Algorithm and its Variants	International Journal of Current Multidisciplinary Studies	IF:2.5838, Vol. 2, Issue,10, pp.479-482, October, 2016	ISSN 2347-8527

8	Mrs.Rashmi Amardeep	Analysis and Predictive Maintenance of Network Management System	International Conference on Internet of Things Published at IJERT.	August 2016 Vol 4 Issue 29	ISSN:2278-0181
9	Mrs.Rashmi Amardeep	Training Feedforward Neural Network with Backpropagation Algorithm	International Journal of Engineering and Computer Science	Jan 2017, IF=4.3098,Vol 6 Issue 1	ISSN:2319-7242
10	Mrs.Rashmi Amardeep	Educational Data Mining A- Study	National Conference on Advances in Computing	May 2017	
11	Mrs.Rashmi Amardeep	Knowledge Discovery &Data mining Software Tools	National Conference on Networking ,Image Processing ,Multimedia ,Internet of Things,Data Mining ,Data Warehousing and Big data Analytics	May 2017	ISBN:978-81-929425-1-3
12	Mrs.M.K. Suguna	Standard Evaluation Module of Attainment	International Journal of Innovative Research and Advanced Studies	Vol. 3(8), August 2016	
13	Mr.Vijay Kumar	An Overview of Mobile Cloud Computing (MCC) and its Applications in Real World	International Journal of Engineering Science and Computing	Vol. 6(7), Jul'2016.	
14	Mr.Vijay Kumar	Standard Evaluation Module of Attainment	International Journal of Innovative Research and Advanced Studies,	Vol. 3(8), August 2016	
15	Dr.Vanipriya CH	A comparison of Text Classifiers for sentimental Analysis	International Journal for Science and Advance Research in Technology (IJSART)	VOL 3 Issue12, December 2017	2395-1052
16	Dr.Vanipriya CH	Role of Image Processing and Machine Learning Techniques in Disease Recognition, Diagnosis and Yield Prediction of Crops: A Review	International Journal of Advanced Research in Computer Science	April 2018	

17	Mr.Raghav S	Automatic Document Retrieval using SVM Machine Learning	IEEE International Conference on Smart Technology for Smart Nation	September 2017	
18	Mrs.Rashmi Amardeep	Privacy Preserving data encryption strategy for Big Data in Mobile Cloud Computing	National Conference on Information, Communication , Control and Computing	May 2018	
19	Mrs.Rashmi Amardeep	Neural Network for Pattern Classification	International Journal of Engineering Research and Applications	Pp 40-44 IF(2017) 5.179,UGC Approved,Vol7,Issue 12	2248-9622
20	Mrs.Rashmi Amardeep	Spatio Temporal Data Mining		May 2017	
21	Mrs.Padmini C	Acomparison of Text Classifiers for sentimental Analysis	International Journal for Science and Advance Research in Technology	VOL 3 Issue12, December 2017	2395-1052
22	Mrs.Shnatha Bradar	Sentiment Analysis, International Journal of Computer Science Trends and Technologies		Vol 6 Issue 3, May-June 2018	2347-8578
23	Mrs. Smitha Patil	A review on Prediction of Chronic Kidney Disease using data Mining Techniques	International Journal of Science and Research (IJSR)	Volume 6 Issue 3, March 2017	2319-7064

05 Student Achivements

Cash award Rs.500/- to students who have secured 80% and above in VTU Exams

I/II SEMESTER

SLNO	Name of the Student	USN	Semester	%
1	SHAMBHAVI CHAUDHARY	1MV14IS044	I & II	86.26
2	MATHEWS JOSEPH	1MV14IS025	I & II	84.19
3	BOLLAMMA P.K	1MV14IS013	I & II	84.06
4	SHILPA CHIKKARADDI	1MV14IS047	I & II	83.48
5	POOJA N	1MV14IS035	I & II	82.84
6	DAYA SINDHU	1MV14IS014	I & II	82.45
7	ANKUR CHOWDHURY	1MV14IS005	I & II	81.48
8	GANA P	1MV14IS016	I & II	81.35
9	NAMRATHA V	1MV14IS027	I & II	81.23
10	KUMAR ABHISHEK	1MV14IS020	I & II	80.97
11	M U SURAJ	1MV14IS024	I & II	80.52

III/IV SEMESTER

SLNO	Name of the Student	USN	Semester	%
1	NISHA D KINI	1MV13IS037	III & IV	81.83

VII/VIII SEMESTER

SLNO	Name of the Student	USN	Semester	%
1	ROOPA M G	1MV11IS041	VII & VIII	80.79

06. **Outstanding Placements Details**

SL.NO.	USN	NAME	Company Name	Package
1	1MV15IS001	Abhinav anand	Roomville Tech	6.5 Lakhs Per Annum
2	1MV15IS002	Abhishek mani	Bosh	5 Lakhs Per Annum
3	1MV15IS003	Abhishek yadav	Accenture	3.5Lakhs Per Annum
4	1MV15IS004	Aishwarya d	Teminos	6.1Lakhs Per Annum
5	1MV15IS005	Arun ps	L&T	4Lakhs Per Annum
6	1MV15IS006	Ashi bansal	Accenture	3.75Lakhs Per Annum
7	1MV15IS007	B A bhuvana	Higher Studies	
8	1MV15IS008	Darshan b	DXFactor	2.7Lakhs Per Annum
9	1MV15IS009	Deepak kushwaha	Tally	6 Lakhs Per Annum
10	1MV15IS010	Gaurav kumar	Accenture	3.6 Lakhs Per Annum
11	1MV15IS011	Hiral a sheth	Teminos	6 Lakhs Per Annum
12	1MV15IS012	K r ashish	Aricent	3.5 Lakhs Per Annum
13	1MV15IS013	Malvika b	Accenture	4 Lakhs Per Annum
14	1MV15IS014	Manish p shetty	Wipro	3.5 Lakhs Per Annum
15	1MV15IS015	Meghana venkatramana patgar	target	10lakhs
16	1MV15IS016	Mehul jain	Wipro	3.5 Lakhs Per Annum
17	1MV15IS017	Mithun kumar s	Mindtree	5Lakhs Per Annum
18	1MV15IS018	Mohammed shariq nawaz	Higher studies @ Germany	Higher studies @ Germany

19	1MV15IS023	Niharika ashok	Higher Studies	Higher studies
20	1MV15IS024	Niranjan b k	CREO	3.5Lakhs Per Annum
21	1MV15IS025	Nithin n	Betsola	4.5 Lakhs Per Annum
22	1MV15IS026	Obaid ur rehman	Cognizant	3.38 Lakhs Per Annum
23	1MV15IS027	P s raghuveer	Fyce	6Lakhs Per Annum
24	1MV15IS029	Pawan kodavalla	Higher Studies	
25	1MV15IS031	Pooja shivaji shanbhag	Toshiba	3.41Lakhs Per Annum
26	1MV15IS032	Prakhar sahu	Quickcilver	4Lakhs Per Annum
27	1MV15IS033	Prashant krishna hegde	Accenture	3.41Lakhs Per Annum
28	1MV15IS034	Prashant kumar	Teminos	6.16Lakhs Per Annum
29	1MV15IS035	Raghav jadia	digit	5.5Lakhs Per Annum
30	1MV15IS036	Rakshitha h m	Infosys	3.6Lakhs Per Annum
31	1MV15IS037	Rohit kumar	JMR	3.4Lakhs Per Annum
32	1MV15IS038	Rucha madke	Accenture	3 Lakhs Per Annum
33	1MV15IS041	Sai rathnam p r	E&Y	4.5Lakhs Per Annum
34	1MV15IS043	Saket sinha	Accenture	3Lakhs Per Annum
35	1MV15IS044	Sandesh jain	Stratogent	3.5Lakhs Per Annum
36	1MV15IS045	Shamika rani	Teminos	5.5Lakhs Per Annum
37	1MV15IS046	Shubham kashyap	JMR	3.5Lakhs Per Annum
38	1MV15IS047	Shubham nigam	Tally	6Lakhs Per Annum
39	1MV15IS048	Shubham shreyaskr	Mindtree	3.5Lakhs Per Annum
40	1MV15IS049	Siddharth sampath	Teminos	5.5Lakhs Per Annum
41	1MV15IS050	Sreejeeth r	Accenture	3.5Lakhs Per Annum
42	1MV15IS052	Srihari m s	Testyantra	3.00Lakhs Per Annum
43	1MV15IS053	Subramanya j	Accenture	3.0Lakhs Per Annum
44	1MV15IS055	Sushma sk	JMR	3.4Lakhs Per Annum
45	1MV15IS056	Swaroop r	Teminos	5.5Lakhs Per Annum
46	1MV15IS059	Vasavi	Accenture	3.5 Lakhs Per Annum
47	1MV15IS060	Venkata narayana u	DXC tech.	3.1 Lakhs Per Annum
48	1MV15IS062	Vishal kumar	JMR	3.4 Lakhs Per Annum
49	1MV15IS063	Yash kumar	Global logic	4.3 Lakhs Per Annum
50	1MV15IS064	Ritika Pandey	Microfocus	6 Lakhs Per Annum

51	1MV15IS065	Nayan Agarwal	Microfocus	5 Lakhs Per Annum
52	1MV15IS066	Shubham singh	Tally	6 Lakhs Per Annum
53	1MV15IS067	Sayantika banik	Microfocus	11.5 Lakhs Per Annum
54	1MV16IS401	Bhanu prakash h r	Meru info solutions	2.5 Lakhs Per Annum
55	1MV16IS406	Megha s patil	Concentrix	3 Lakhs Per Annum
56	1MV16IS407	Nanjamma c g	Recibo	3Lakhs Per Annum
57	1MV16IS408	Pavithra m	Genisys group	5 Lakhs Per Annum
58	1MV16IS411	Sushmitha s kenchareddy	JMR	4 Lakhs Per Annum

07. Editorial Committee

Chief Editor: Dr. P. Vijaya Karthik – Professor and HOD.

Editor Members:

Dr. S N Sheshappa Associate Professor

Dr. C H Vanipriya

Mrs. Rashmi Amardeep Associatr Professor

Mr. Raghav S Associate Professor

Mr. Vijay Kumar Asst. Professor

Student Editorial Members:

Afrah Mariam Habib

Bollamma P K

Mathewa Joseph

Yadunandan R

Abhishek C

Anoop V

Nipun Sailesh Bodra

Shreya S

PRINCIPAL'S MESSAGE

Congratulations to the Editorial team for their unstinted efforts in beautiful threading of technical information and fun articles in their maiden venture of publishing the departmental magazine. I am sure the reader will enjoy from end to end the informative and interesting publication.

Dr. M S Indira
Principal

HOD's MESSAGE

We are all proud that Information science and Engineering has completed seventeen academic years and enriched the lives and lifestyles of more than a thousand students. We are all happy that our department is releasing a magazine "FOOBAR" which contains student innovative articles, and Technical information for knowledge gathering.

We take this opportunity to thank our Management, Principal Dr. M.S Indira for her constant support to bring this magazine in a successful way. I congratulate the staff in charge for this magazine Mrs. Rashmi Amardeep and team of student volunteers for their commitment towards bringing out this magazine.

Dr. P. Vijayakarthick M.E, PhD
Professor and Head
Department of ISE, Sir MVIT

The Fermi Paradox

Everyone feels something when they're in a really good starry place on a really good starry night and they look up and see this:

Some people stick with the traditional, feeling struck by the epic beauty or blown away by the insane scale of the universe. Personally, I go for the old "existential meltdown followed by acting weird for the next half hour." But everyone feels *something*.

Physicist Enrico Fermi felt something too—"Where is everybody?"

A really starry sky seems *vast*—but all we're looking at is our very local neighbourhood. On the very best nights, we can see up to about 2,500 stars (roughly one hundred-millionth of the stars in our galaxy), and almost all of them are less than 1,000 light years away from us (or 1% of the diameter of the Milky Way). So what we're really looking at is this:

Our night sky consists of a small selection of the very brightest and nearest stars in the red circle.
waitbutwhy.com

When confronted with the topic of stars and galaxies, a question that tantalizes most humans is, "Is there other intelligent life out there?" Let's put some numbers to it— As many stars as there are in our galaxy (100 – 400 billion), there are roughly an equal number of galaxies in the observable universe—so for every star in the colossal Milky Way, there's a whole *galaxy* out there. Altogether, that comes out to the typically quoted range of **between**

10^{22} and 10^{24} **total stars**, which means that for every grain of sand on every beach on Earth, there are *10,000 stars* out there.

The science world isn't in total agreement about what percentage of those stars are "sun-like" (similar in size, temperature, and luminosity)—opinions typically range from 5% to 20%. Going with the most conservative side of that (5%), and the lower end for the number of total stars (10^{22}), gives us 500 quintillion, or **500 billion billion sun-like stars.**

There's also a debate over what percentage of those sun-like stars might be orbited by an Earth-like planet (one with similar temperature conditions that could have liquid water and potentially support life similar to that on Earth). Some say it's as high as 50%, but let's go with the more conservative 22% that came out of a recent PNAS study. That suggests that there's a potentially-habitable Earth-like planet orbiting at least 1% of the total stars in the universe—a total of **100 billion billion Earth-like planets.**

So there are *100 Earth-like planets* for every grain of sand in the world. Think about that next time you're on the beach.

Moving forward, we have no choice but to get completely speculative. Let's imagine that after billions of years in existence, 1% of Earth-like planets develop life (if that's true, every grain of sand would represent one planet with life on it). And imagine that on 1% of *those* planets, the life advances to an intelligent level like it did here on Earth. That would mean there were 10 quadrillion or **10 million billion intelligent civilizations in the observable universe.**

Moving back to just our galaxy, and doing the same math on the lowest estimate for stars in the Milky Way (100 billion), we'd estimate that there are **1 billion Earth-like planets and 100,000 intelligent civilizations in our galaxy.**

SETI (Search for Extra-terrestrial Intelligence) is an organization dedicated to listening for signals from other intelligent life. If we're right that there are 100,000 or more intelligent civilizations in our galaxy, and even a fraction of them are sending out radio waves or laser beams or other modes of attempting to contact others, shouldn't SETI's satellite dish array pick up all kinds of signals?
But it hasn't. Not one. Ever.

Where is everybody?

It gets stranger. Our sun is relatively young in the lifespan of the universe. There are far older stars with far older Earth-like planets, which should in theory mean civilizations far more advanced than our own. As an example, let's compare our 4.54-billion-year-old Earth to a hypothetical 8-billion-year-old Planet X.
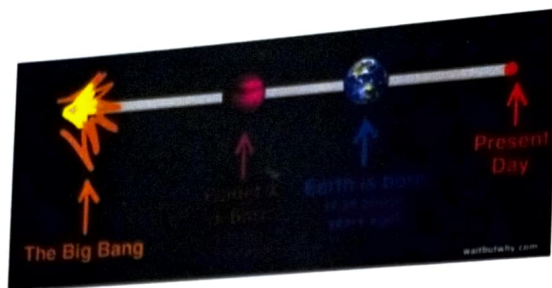
If Planet X has a similar story to Earth, let's look at where their civilization would be today (using the orange timespan as a reference to show how huge the green timespan is):
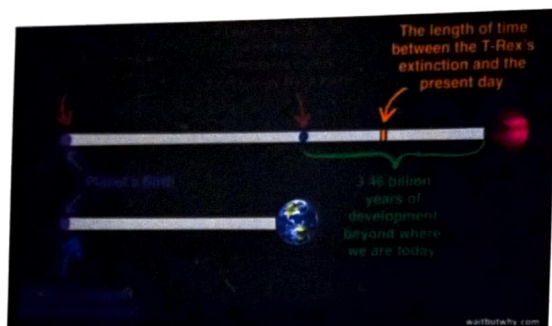
The technology and knowledge of a civilization only 1,000 years ahead of us could be as shocking to us as our world would be to a medieval person. A civilization 1 million years ahead of us might be as incomprehensible to us as human culture is to chimpanzees. And Planet X is 3.4 billion years ahead of us…

There's something called The Kardashev, which helps us group intelligent civilizations into three broad categories by the amount of energy they use:

A **Type I Civilization** has the ability to use all of the energy on their **planet**. We're not quite a Type I Civilization, but we're close (Carl Sagan created a formula for this scale which puts us at a Type 0.7 Civilization).

A **Type II Civilization** can harness all of the energy of their **host star**. Our feeble Type I brains can hardly imagine how someone would do this, but we've tried our best, imagining things like a Dyson Sphere.

A **Type III Civilization** blows the other two away, accessing powers comparable to that of **the entire Milky Way galaxy**.

If this level of advancement sounds hard to believe, remember Planet X above and their 3.4 *billion* years of further development. If civilizations on Planet X was similar to ours and were able to survive all the way to Type III level, the natural thought is that they'd probably have mastered inter-stellar travel by now, possibly even colonizing the entire galaxy.

One hypothesis as to how galactic colonization could happen is by creating machinery that can travel to other planets, spend 500 years or so self-replicating using the

raw materials on their new planet, and then send two replicas off to do the same thing. Even without traveling anywhere near the speed of light, this process would colonize the whole galaxy in 3.75 million years, a relative blink of an eye when talking in the scale of billions of years!

Continuing to speculate, if 1% of intelligent life survives long enough to become a potentially galaxy-colonizing Type III Civilization, our calculations above suggest that there should be at least 1,000 Type III Civilizations in our galaxy alone—and given the power of such a civilization, their presence would likely be pretty noticeable. And yet, we see nothing, hear nothing, and we're visited by no one.
So where is everybody?

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THIS IS THE FERMI PARADOX!
We have no answer to the Fermi Paradox—the best we can do is "possible explanations." And if you ask ten different scientists what their hunch is about the correct one, you'll get ten different answers. You know when you hear about humans of the past debating whether the Earth was round or if the sun revolved around the Earth or thinking that lightning happened because of Zeus, and they seem so primitive and in the dark? That's about where we are with this topic.

(Few of the ideas and images are taken from Tim Urban's blog on The Fermi Paradox.

This is also the reason for Elon Musk, a billionaire CEO of SpaceX and Tesla Motors and cofounder of PayPal, to contemplate over making Human Beings a multi-planetary species by advancing ourselves to type 2 and type 3 civilisations in the next few thousand years and conquering planets like Mars, in order to avoid extinction like the hypothetical case of the Planet X which could have possibly got succumbed to extinction.

All this sounds crazy, right? The cynics have always scoffed at this, and quite understandably so. But Musk is one of the revered doers in the Silicon Valley and has always been proving the scepticism around him wrong by successfully achieving the once seemingly impossible tasks through his companies. If you're interested in knowing more about him, his companies and how he's successfully ousted the conventional methods and lifted the standards in the aerospace and automobile industries, I would personally suggest you to get your hands on his biography "Elon Musk : How the billionaire CEO of SpaceX and Tesla is shaping our Future" by Ashlee Vance. You could also read as much as you'd like through the inexhaustible range of blogs about him on the Internet.)

Thank you

- Sai Rathnam P R
2nd Sem ISE

8 Things I've realized in 2 years of my College life

1. You're actually on your own

For the last eighteen years you've been freeloading off of your parents and now they're far away. Probably, your younger sibling might have already taken over half of your stuff. There is no one to do your laundry or remind you to change your bed sheet. You're entirely by yourself and this fact alone is enough to scare you to death. As ready for leaving home you may have thought you were, there's nothing quite like your parents driving away and leaving you in a tiny room with a complete stranger to give you a kick into reality.

2. So is everybody else.

It's like being at a waterpark. Don't be embarrassed by your wet shorts because everyone else around you happens to be sporting a matching one. The only thing you can do now is find some humor in it, put on a brave face, and help each other out as best as you can.

3. Your real responsibility is to LEARN

Food is being cooked for you and distributed straight into your mouth buffet style. You barely have to clean your dorm. You don't have monthly bills to pay, and you don't have to worry about your electricity or water getting shut off. You don't have chores. You paid a ridiculous amount of money for an education and that is what you are getting. I'm not being an "Anu Aunty", you don't need to study and mug up all the time, and there is a fine line between studying and learning. Learn something every day and strive to be better than before to make this 4 years' worth it.

4. People will use you

Unfortunately, people aren't always what they seem to be, at first. You do realize with time that people might not necessarily be against you, but they are for themselves. The key here is to stop acting like your school version. Socially punishing them won't hurt them, only you. So let it go, and accept the fact that they, like you, are an uncertain and insecure child in this circus called college. Maybe you should thank them, for giving you experiences.

5. People will love you

You will meet amazing friends who are there to help you and make a serious effort to be in your life and get to know you. Let them in. Even if they are completely different from you, you will learn such valuable, silly, and unforgettable things from them. I've met many people in the college who have hard time allowing themselves to form deep friendships, and i honestly can't understand this at all. If someone values you enough to pursue a meaningful friendship, let them, because you deserve people who know your worth.

6. Your family is the best

You miss them every day. You miss the way your house smells and your bed feels and the constant bi rckering, and most of all, the taste of your mom's cooking. You even miss your sister's never ending tantrums. The separation teaches you to appreciate your family so much more than you did before you left for school, when you mainly took them for granted and used their Wi-Fi. You realize that they were the only constant throughout your life.

7. You will Change

It's inevitable. You start finding new interests and new opinions, and you begin to know who you really are. Your views are constantly challenged by others and sometimes you begin to challenge them yourself as well. Your perspective to see things may change so much that, at times it may amuse you to think about the two years younger version of yourself. Although people from home may berate you on how much you have changed, as long as you haven't started dealing in meth, change is mostly good.

8. You're on your way

Every day you're gravitating towards the big and extravagant plans you are working hard for. You don't realize this during your first year, or even during your graduation. Only when you're actually out DOING STUFF in classes and on campus do you realize that you're actually on yourself and enjoy the journey. Way. Now all you can do is have faith in what you do.

-Faisal Jawed
4th Sem ISE

THINGS I COULD DO WHEN MY WIFI IS DOWN
1) Read a book. 2) Enjoy the weather. 3) Catch up with a friend. 4) Clean and organize
WHAT I DO
Spend hours doing this: CONNECT YOU STUPID SONOFA—
©Sarah Anderson

God's Algorithm

Here is something that you might like to find in your college's magazine, that strikes a right chord in our engineering minds.

Sixteen years into the 21st century, we have seen exponential growth in population and technology, ushering in the era of modernization christened with significant discoveries, more efficient manufacturing using more non-conventional sources of power that before, new spectacular ideas and much more, all striving towards sustainable growth.

This is the situation, questions have answers, well, rational questions do! Like 4 + 4 = 8, why do we see a rainbow? Because of an elaborate phenomenon of refraction within many spherical water droplets. As i mentioned earlier, questions have answers and similarly problems have solutions.

The question I'd like to pose is this one "How easy is it to arrive at the answer or derive the solution?", be it math or to produce petrol from crude oil, any process. There are some hurdles and it isn't as easy as anyone thought it would be right? Here is something interesting.

God's algorithm it's called, it revolves around a brilliant computer engineer and his love for puzzles. He loved the Rubik's cube; all mathematicians love the Rubik's cube. Given the number of different pieces and the number of ways in which it can be moved.
There are 43,252,003,274,489,856,000 combinations of the cube, that's simply 43 quintillions worth of permutations and combinations for us simpletons, also there are 23 trillion ways to arrive at the same starting position on the cube.

Being a computer engineer this man devised this experiment, he put the 23 trillion combinations and tried to minimize the number of moves by which you can solve the cube.

So after literally a billion seconds of computing (31 years, 251 days, 13 hours, 34 minutes) the result was 20. "You can solve the Rubik's cube from any given state in less than or equal to 20 moves". Every position of Rubik's cube can be solved in twenty moves or less. This 20 is a sharp upper bound on the length of optimal solutions. This number is known as God's number.

Additional information: With about 35 CPU-years of idle computer time donated by Google, a team of researchers has essentially solved every position of the Rubik's cube, and shown that no position requires more than twenty moves. (2010)

On further experiments with similar puzzles like the Rubik's cube and extrapolating the data, we can arrive at this "An answer to a question can be arrived in the least number of ways".

A crisp definition for an engineer would be "Someone one has ideas, develops solutions for existing problems". As our role as engineers it is our duty to be more innovative and work towards being as efficient as possible, this God's number, 20. We have to make things simpler and easier to learn, teach and replicate. Isn't it fascinating 23 trillion to 20? Imagine if we can do something similarly for other smaller problems if at all?

-Arun PS
2nd Sem ISE

Being a FULL-STACK developer: THEN and NOW

"Full stack developer" is someone who has acquired refined skills at every layer of web development. But as time progressed, technologies evolved, thus increasing the layers exponentially. Therefore making it manifolds tougher to become one in today's world. Let's see what it means now and what it meant then.

Full-stack used to mean fewer layers.

Back then, all you needed was Programming a scripting language like PHP or Python for back-end, jQuery, HTML, CSS for front end, and then transferring a few files via FTP to your shared hosting account or dedicated server and You were full-stack. HTML was trivial, and implementation of any proper application code in JavaScript wasn't even thought of.

Talking at a level of senior full-stack engineer would mean architecting a modular Backbone/AngularJS front-end while simultaneously optimizing the content delivery system and tweaking hardware accelerated layers in CSS.

The backend should be implemented in such a manner that it is an asynchronous and non-blocking and pre-rendering ability for templates on the server.

It should be pushed to an AWS cluster which has been built with security and scalability in mind.

Not to forget design. Designing UI responsively and mobile-first is essential, utilizing a CSS pre-processor to save time.

To add to it a monitoring system is necessary as well. (Like Nagios)

So is it even possible to be a full stack developer?

Some of you might already be disheartened after reading the above paragraph on talks about full stack development. Most of the stuff must have sounded gibberish, and it should have.

But to tell you a secret, the moment you start googling technical phrases like 'modular backbone/angular JS' and start reading blogs and articles about it, everything will start making sense. All you need is a thirst to learn and grasp all about new technologies.

You will have to work hard for a long period of time. First score in the front-end, then go on to master backend and databases. Follow it up by delving deep into the world of servers and cloud computing.

Still there will be a lot left to learn in this ever growing field.

But this hard work will definitely reward you munificently not just monetarily, but also in terms of respect in the coding community.

To sum it up, YES it is difficult to become a full stack developer. But we all know that there is no substitute to hard work!

P.S. Thank you Shora for letting me use bits and pieces of your article!

-Sanket Singh

2nd Sem ISE

DON'T READ ON A TRAIN. DON'T SHUT THE BLINDS. LOOK OUT THE WINDOW.

Screaming babies aren't the ones who bother me most on a train. It's the people who don't look out the window, the people who draw the curtain as soon as they get on and never pull it back, the people who bury their heads in a laptop and don't glance up for the whole journey. Don't be that traveller.

Between wanderlust taking hold from a young age and getting a college on the complete opposite side of the country, I travel a lot. Most people want an upper berth, but I inwardly groan when I get a middle or upper berth. I'll take being squashed any day if I can look out a window.

Forget about personal space , I want ample opportunities to gaze. Train views have a way of putting life into perspective. They can make you feel so small- one human, on one train, moving besides a vast expanse of land. They can make you feel invincible for the very same reasons. Sometimes city sprawl will greet my eyes. Other times, I'll see ancient rivers, sandy beaches or invitingly deserted mountain range. What doesn't change is the happiness I get from seeing something, anything, out the window. Even if you're not a hopeless "senti" guy like me, you can't deny that these views are unique. They are special. They are thought provoking.

Travelling into a new city for a trip is exciting, but what really gets me is travelling between the two places I call home. We fly over memories of best friends and a girl. We go over parts of my life that I want back and other parts that I've already left behind. I always end up reflecting on how much can change in a year or two. Looking out the window makes me confront these feelings. Going home can be bittersweet.

No matter how I feel as we reach, I'll always look out the window. Next time you travel, you should too. Don't brush away the unease or the confusion. Embrace the perspective. Crane your neck for a peek at that diligent farmer working tirelessly in the scorching heat or that little kid swimming carelessly in that small pond. But please don't just snap a shot out the window, throw a filter on it and put your head back down. Open your eyes and really see. There are too many pictures and not enough people who truly love looking out over them. Appreciate getting lost in a view. Be that traveller.

-Faisal Jawed

4th Sem ISE

WHEN YOU HEAR THIS:

YESTERDAY IT WORKED

YOU KNOW YOU'RE IN A SOFTWARE PROJECT

SEARCHING FOR A COURSE??

I want to start learning a skill, but I'm not sure what. All anyone suggests me is either mobile app development or web app development. Is the world of computer science limited to just that?

Of course not and that's why the following list exists. I have tried to cover almost all the good courses and topics in this field! Now all you need is select something that ignites your passion and start coding..!

- **Game Development** - OpenGL (very simple), Unity 3D Engine, Unreal Engine, Python Game Dev Course on Coursera
- **Web Development** - Ruby basics, Rails (my personal choice!), Python Basics, MVC, Django, Task Brokers, RabbitMQ, Web Sockets, Ajax
- **Big Data / Data mining** - Map Reduce, Apache Hadoop, Shark, Storm, Pig, Java - Basics
- **Machine Learning** - Classifiers, Bayesian Network, SVN, Bag of Words, NLP - Wordnet
- **Databases** - MySQL, NoSQL Db like Cassandra, Titan, Key-Value Store
- **Software Engineering** - Apache Ant, Maven, gradle, Git, SVN, JUnit, OOP
- **Data Structures / Algorithms** - Greedy Approach, Dynamic Programming, Other basics (You will learn most of this in your curriculum anyway!)

- **Desktop App Development** - Windows Store App - SDK, Kinect SDK, Java Swing,
- **Android** - java Basics, XML, AsyncTask, List Views, Activity Transitions, Network Request, SQLite, Content Providers
- **Hacking / CTF** - Reverse, Binary Exploits, Web Hacks - SQL Injection, OverFlow Hacks, Cryptography Course on Coursera
- **Linux Kernel Development** - Eudulypta Challenge
- **Networks** - TCP/IP, Packets, Frames, Handshake

-Sanket Singh
4th Sem ISE

GOOD CODERS...

... KNOW WHAT THEY'RE DOING
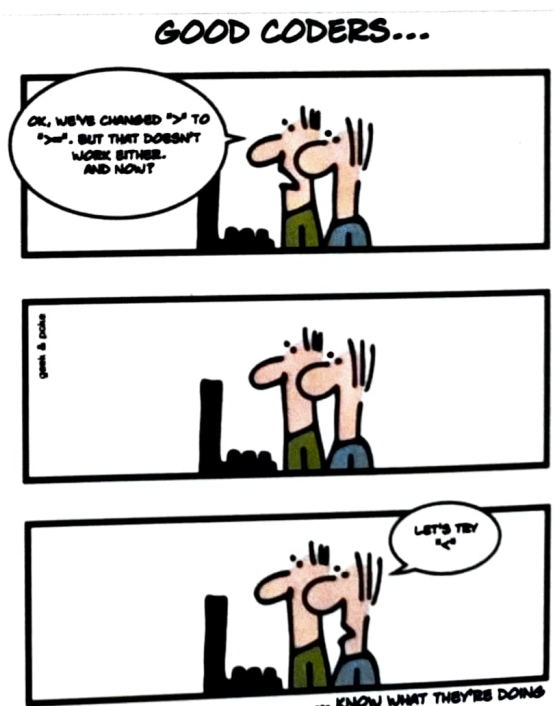
ACHIEVEMENTS

SL.NO	NAME OF THE STUDENTS	EVENT	ACHIEVEMENT & AWARDS	ORGANISED BY KLU/OTHER INSTITUTION	DATE
1.	Vishal Jayanth, Sanjay Kumar, Tejashwini, Shaik Ruksana, Pooja S.	"Way2Web" workshop on webpage developer	Organized workshop and competition	Sir. MVIT	April 2015
2.	Vishal Jayanth	"Creative creator" webpage development competition	Participation	NMIT	2014
3.	Vishal Jayanth	IEEE national level project exhibition, "SOFT SWITCH"	Participation	Sir. MVIT	Aug - 2015
4.	Tejashwini, Shaik Ruksana	Paper presentation on highway patrolling system in PAPYRUS	Participation	Sir. MVIT	Aug - 2015
5.	Ankitha D	Campus Ambassador	Cognizant campus Ambassador	Cognizant	21st Sept
6.	Kumar Gaurav	Sports tournament "Interbranch cricket"	Participated and awarded Runner up	Sir. MVIT	2013
7.	Suraj Patel	VTU cricket tournament	Participation	Pondicherry Chennai	2013-14 2015-16

STUDENT GALLERY

-Samuel S

-Samuel S

-Amrita Bhat

-Samuel S

-Samuel S

-Bhuvana Rao

-Anoop V

-Athul Gupta
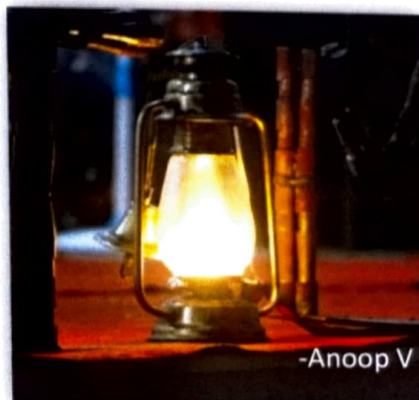
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Mrs. Rashmi Amardeep

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