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The IIIT Surat Newsletter

Indian Institute of Information Technology, Surat

Message from Director

Indian Institute of Information Technology, Surat progressing in its academic escapade with active participation of faculty and students. The achievements of faculty and students is giving me the pleasure to present this newsletter. The Students Startup Innovation Policy (SSIP) activities have geared up, and students have developed prototypes useful for society and industries (both small and large-scale). One design patent was registered and is a good beginning of the new year 2022. The students are aspiring for more patents and persuasion to be different from others. The high impact factor publications indicate the quality of research by the faculties.

With nearly 81% placement of second batch B. Tech. students in top-notch MNC companies is a significant milestone for an Institute in its early days. Our students have participated in various competitions and won laurels for the Institute. EBSB coordinators are collaborating with IIIT, Kanchipuram for co-curricular activities, cultural exchange programmes, and competitions under "Azadi ka Amrit Mahotsav". Many outreach programs, invited talks by renowned experts were organized in order to kindle innovative mindset in young budding engineers. In spite of the difficulties of the pandemic, I am sure the institute will soon justify the stature "Institute of National Importance".

Prof. J. S. Bhat
Director, IIIT Surat

Editorial

It gives us immense pleasure to present our second issue of Infinity Newsletter. We are grateful for appreciating the **First Issue** of "**InfInITyS**" newsletter. Your positive comments and valuable suggestions have driven us in improving the contents of this and upcoming issues.

IIIT Surat is continuously putting efforts in enhancing its academic, co-curricular and research activities. Moreover, a number of events and cultural activities were conducted throughout the 3-4 months. The students' start-up and innovation policy (SSIP) related activities for the students have resulted in many innovative ideas, proof of concepts, and prototypes. The second batch of B. Tech. Students are placed well in MNCs and it adds to the performance of the Institute. This issue highlights the novel ideas realized by the students and the achievements of the start-ups of the alumni of the Institute.

Happy reading!

Dr. Nishad G Deshpande
Editor

Faculty Achievements

Dr. Pradeep Kumar Roy
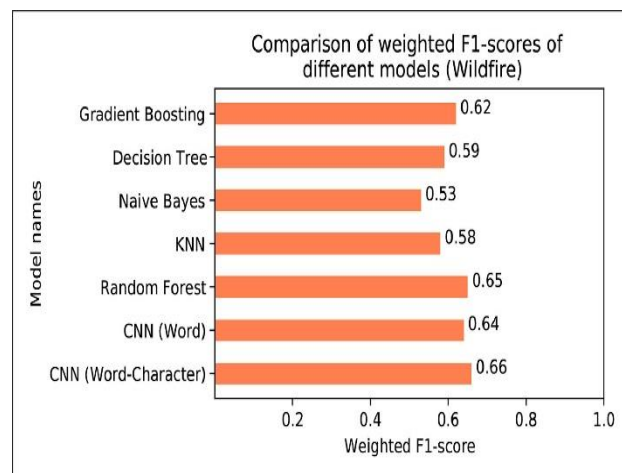
Assistant Professor, CSE Department

Twitter is one of the popular social networking platforms where a huge number of tweets are posted every second. It is used for various purposes, including sharing achievements and asking for help.

During the disaster, people post tweets for various issues such as:
1. Asking for help.
2. Informing about missing or dead people.
3. Infrastructure or utility damages.
4. Requests or Urgent Needs.
5. Sympathy and Support, etc.

This study is focused on building a model which classifies the tweets into informative (disaster-related) and normal tweets categories using the deep learning model which helps the rescue operation.

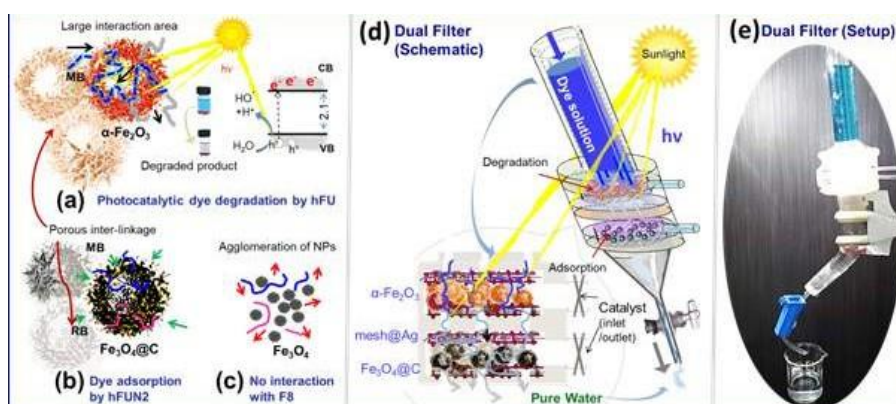"**Disaster related social media content processing for sustainable cities.**"

Comparison of weighted F1-scores of different models (Wildfire)

Model names	Weighted F1-score
Gradient Boosting	0.62
Decision Tree	0.59
Naive Bayes	0.53
KNN	0.58
Random Forest	0.65
CNN (Word)	0.64
CNN (Word-Character)	0.66

Research work published in highly reputed journal "Sustainable Cities and Society" [Impact Factor-7.587]
https://doi.org/10.1016/j.scs.2021.103363

Dr. Nishad G. Deshpande

Assistant Professor, Physics

Developed a bifunctional filter electrode using biomimetic hollow structures of Iron-oxide for sustainable wastewater treatments.

These bifunctional filters uses two mess layers-upper mess layer contains photoactive hollow structures of α-Fe_2O_3, while lower mess layer contains magnetic hollow absorbant Fe_3O_4. The upper layer degrades the toxic azo-dye molecules photocatalytically, while lower layer adsorbs remaining toxic dye molecules thereby giving highly efficient wastewater treatment.

Research work published in highly reputed journal "Chemosphere" [Impact Factor-7.086]
https://doi.org/10.1016/j.chemosphere.2021.131789

Students Achievements

1. Rohtech Challenge

Krishna Ojha, Dhairya Pate, and Ekta Arora alumni of IIIT Surat won the safe RohTech Challenge in November 2021, which was conducted by WRI and Nagarro in partnership with the Rohtak government, worldwide for their solution UltraviZ.

2. Startup Incubated by SSIP Cell under SSIP 1.0 program

IIIT Surat SSIP cell incubated startup projects of IIIT Surat students.

Following are the teams and their respective projects:

- Puneet Dadhich, Lokesh Jangid & Laxhit Prajapat of 3rd Year-Project on Women Safety band "Raksha".

- Jayesh Vishwakarma, IIIT Surat Alumni-Project on IoT based fast, reliable and intuitive standalone POS system.

- Pratyush Gupta, Nikhil Vyas, Himanshu Shukla, and Mayank Arora- Project on IoT and Cloud-Solar Panel Cleaner "Yuvaan".

- Nishant Singh, Pratyush Gupta, Himadri Tanya, Raj Baindra & Nikhil Vyas- Project on Edutech Industry (App development) "Gurucamp".

- Harsh Mavani, Jevin Makvana & harsh Radadiya of 2nd Year- Project on Online Salon Registration (App/website development) "Startup Crew 2020".

- Sparsh Jhariya, Prasang Maheshwari & Pulkit Agarwal of 2nd Year- Project on pet care services (App/website development) "PetC".

- Harshiv Thakkar, Harshal Solanki, Kushagra Chauhan, and Padmanabhan Daivik of 2nd Year- Project on IoT "IoT on Rover".

Institute Events

1. Gandhi Jayanti- 2nd October 2021

"Happiness is when what you think, what you say, and what you do are in harmony."

- Mahatama Gandhi

On the dazzling morning of 2nd October 2021, IIIT Surat celebrated the 152nd birthday of the great leader Mohandas Karamchand Gandhi and 117th birthday of the former Prime Minister of India Lal Bahadur Shastri. The Institute had also organized an online seminar on the remarkable journey of Gandhiji and Shastriji. The special appearance on the event was **Dr. Rahul Raj** from Jawaharlal Nehru University, New Delhi. An expert in languages, literature and cultural studies. He enlightened and gave valuable insights on the Gandhian values and ideologies. Also he provided insights on the life of Lal Bahadur Shastri. Faculty, non-faculty and students attended the online lecture.
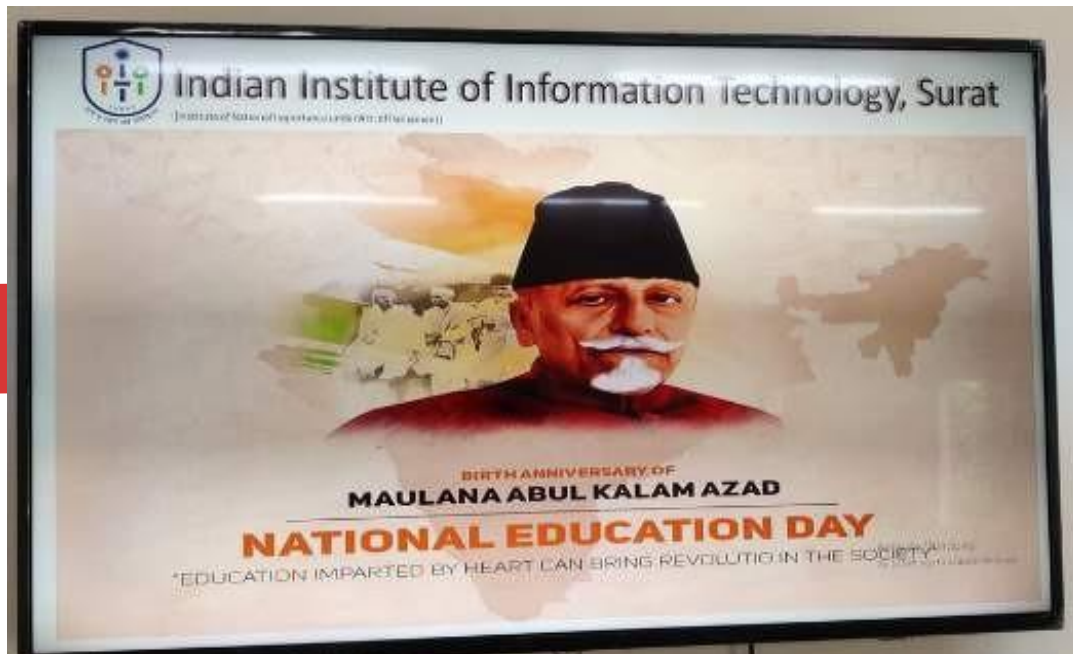
2. Vigilance Awareness Program- 2021

As per the directives of CVC vide Circular No. 021/VGL/045 dated 01-09-2021, the Vigilance Awareness Week-2021 with the theme "Independent India @75: Self Reliance with Integrity" was observed in Indian Institute of Information Technology, Surat from 26th October to 01st November 2021. The event started with a pledge/oath taking ceremony on 26th October 2021 in Institute premises that embarked the spirit of responsibility the faculty & non-faculty members. **Prof. J. S. Bhat**, Director IIIT Surat, chairing the occasion expressed his experiences in vigilance aspects and suggested all the faculty and non-faculty members to be vigilant against corruption and maintain integrity throughout for the prospects of self and society.

3. National Education Day at IIIT Surat- 11th November 2021

National Education Day was observed in the institute to commemorate the birth anniversary of **Maulana Abul Kalam Azad**, the first education minister of Independent India.

Director speaking on the occasion provided the necessity of education and why we need to observe it. He emphasized on making education free to all and guided the faculty to work for the benefit of society by providing them necessary help in education.

" Data is not information, information is not knowledge, knowledge is not understanding, understanding is not wisdom. "

4. SSIP Evaluation Committee Visit- 24th November 2021

Students Startup and Innovation Policy

Creativity is thinking up new things. Innovation is doing new things "

SSIP Evaluation Committee visited to IIIT Surat for evaluation the progress of the SSIP program. The Committee had interaction with the Director. The Committee visited SSIP cell and discussed the progress of the SSIP with Coordinator Dr. Deshpande.
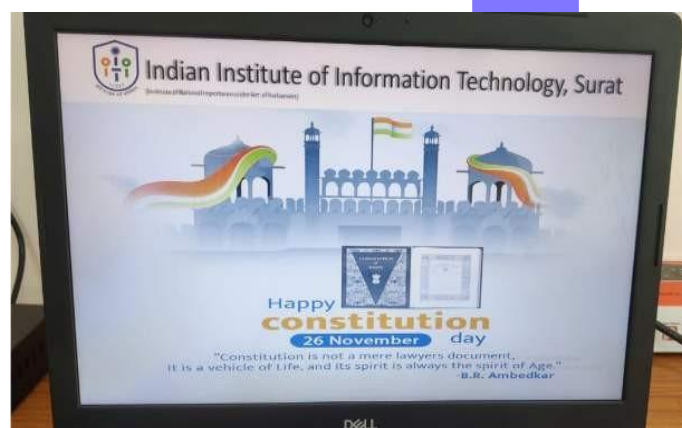

They also evaluated one of the prototypes developed by student Mr. Jayesh Vishwakarma (Batch-2017) based on POS and IoT system.

5. National Constitution Day – 26th November 2021

National Constitution Day was observed on 26th November 2021 in the IIIT Surat Institute to mark the success of the Constitution and memorize the founder members who designed and wrote the Indian Constitution. The faculties listened to the speech (virtually) given by our Hon'ble President of India **Shri Ram Nath Kovind** in the Parliament of India with great fervour.

Later, a pledge was taken by all faculty and non-faculty members in the presence of **Hon'ble Director Sir Prof. J. S. Bhat**.

" **Law and order are the medicine of the body politic and when the body politic gets sick, medicine must be administered.**"

- BR Ambedkar

6. Online Webinar on "Introduction to Intellectual Property Rights"– 27th November 2021

An expert talk by **Mr. Nilesh Pandit** (Indian Patent Attorney) on Intellectual Property Rights was organized as a SSIP activity for all faculty, non-teaching, and students by the Institute. **Miss Jasmina Vanasiwala** (IIIT Surat Faculty) introduced the speaker Mr. Nilesh Pandit.

A valuable insight on **"Intellectual Property Rights"** was provided by **Mr. Nilesh Pandit**. He also provided the necessary idea about process of searching of patents, filing of patents, etc. in India. All faculty, non-teaching and students actively participated by having discussions on various points of IPR with Mr. Nilesh. Later on, a question and answer session was also held in which various questions were asked from students, faculties to the expert speaker. The seminar concluded with a Vote of Thanks from **Dr. Nishad G. Deshpande** (IIIT Surat, faculty).

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7. Orientation Programme for First year incoming students – 13th December 2021

On 13th December 2021, IIIT Surat organized an orientation program for the fresher's batch of 2021. The program was started at 10.30 am and was hosted by **Dr. Lokesh Chauhan** (Coordinator, Academics). The students were introduced to the rules and regulations of the institute. They were also given a brief introduction to the course structures by the respective professors. An overview to research and developments, Students welfare and Training Placement of the institute was provided to the students. **Prof. J. S. Bhat** Director, IIIT Surat also attended the event and gave a brief idea about the institute and its achievements to the fresher's. He welcomed all the new students to IIIT Surat.

A special session with **Gurudev Sri Sri Ravi Shanker Ji** was also programmed by the institute in collaboration with the Art of living at 5.00 pm allowing students to clear their queries regarding spirituality and maintain healthy and happy life during these COVID situations.

Club Reports

SARAS

Music Competition – 17th January 2022
A joint event by SARAS, IIIT Surat and Musical Club IIITDM Kancheepuram

IIIT Surat has been aligned with IIITDM Kancheepuram under the **EK Bharat Shreshtha Bharat** scheme of the Government of India. Under this scheme, the central government institutes are paired with another institute located in some other state to establish the cultural hegemony among the Indian students, and to develop a sense of collective identity. In December 2021, SARAS team got the contact details of Cultural Club of IIITDM Kancheepuram. The SARAS team had a few rounds of teams bonding conversations with their Cultural club. The meeting was initiated and organized by **Mr. Rahul Patel and Ms. Shraddha Patel**, EBSB coordinators IIIT Surat, & Ms. Parvathy, EBSB coordinator IIITDM Kancheepuram.

After three team bonding sessions, both teams came to a common conclusion to organize a musical competition because music has no language, and it is one of the easiest ways to connect with any unfamiliar place or culture. The competition was organized in two categories viz. Vocal & Instrumental to offer the two types of musicians a fair chance to showcase their talents.

The competition saw encouraging response from the students, & specially the students of IIIT Surat, seeing their strength and the age of their cultural club. A total of 16 entries were received in the Vocal category and 15 entries in the Instrumental category. The event was judged by Dhyuti, Anirudh, Sindhuja, and Prince.

After careful and detailed judging, 3 winners and 2 honorary mentions were selected from both the categories.

The organizing team is thankful to the administration of the two premier institutions for supporting the event with The list of the Winners are:

1. Arun Solaiappan V
(Sri Venkateswara College of Engineering)

2. Melvin Rosoaario A
(Sri Venkateswara College of Engineering)

3. Harish K M
(IIITDM Kancheepuram)

great care and love. We would like to extend our gratitude to the EBSB coordinators of the two institutions, Mr. Rahul Patel and Ms. Shraddha Patel from IIIT Surat and Ms. Parvathy from IIITDM Kancheepuram.
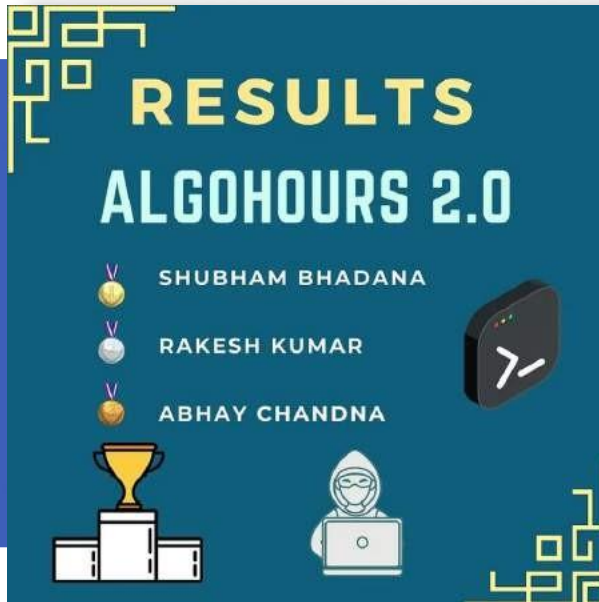

GDSC

Devheat 2.0

The Devheat 2.0 conducted by GDSC IIIT Surat, was successfully conducted from 12th-15th November 2021. It was an interactive event involving various tracks to give an idea and also had an open innovation track to promote instant idea building and thoughts. The hackathon was a 60 hour Sprint that aimed at learning rather than competing with each other. The Hackathon saw various teams and amazing projects by them. It had a prize pool of INR 8000 and various swags too. The Hackathon also had various judges from different colleges and various domains to give an unbiased and fair judgement. The amazing team of judges consisted of- Kshitij Suri, Shraddha Agarwal, Gyanesh Kumar, Gautum Ramakrishnan, Esha Kurode. The top 3 teams were- Dev.HNZ, Grunters, port3000.

LCS

AlgoHours 2.0

"The contest saw remarkable 900+ submissions and very high enthusiasm from the participants."

On 19th September 2021, the LCS Club of IIIT Surat had organized an annual coding competition (online) known as AlgoHours.

There were a total of 5 questions based on DSA and the participants were given a limited time of 2 hours to solve these questions.

A total of 115 students participated in the competition, from both IIIT Surat and SVNIT.

The contest saw remarkable 900+ submissions and very high enthusiasm from the participants. The participants were ranked by the online judges of HackerEarth which ranks the participants based on the total number of questions solved and total time taken to solve those questions cumulatively. Out of those 115 participants, the top 3 were chosen as winners.

The following participants were announced as winners by the number of questions solved and total taken to solve them:

1. Subham Bhadada
(SVNIT CSE, 3rd year)

2. Rakesh Kumar
(IIIT Surat CSE, 3rd year)

3. Abhay Chandna
(SVNIT CSE, 3rd year)

Alumni Interview

Jayeshh Vishwakarma (2017-2021)

"The Future belongs to those who believe in the beauty of their dreams".

Mr. Jayeshh, Alumni of the IIIT Surat [ECE department], proved this statement by showing the beauty of their ideas and efforts into a physical thing. He made a prototype of a billing machine which is beneficial for small retailer's shops to hotels, etc. His project was supported and funded by the institute SSIP cell.

In his interview, having questioned the inspiration of this idea, he answered that when he went shopping in a local retail shop, he encountered a long queue in front of the shop, and later on, he found out that the shopkeeper was invoicing bills manually in a register which was taking a lot of time. That's when he got the idea of creating a cheap and affordable billing machine for small businessmen.

Jayeshh Vishwakarma

Akansh Raturi

At starting, he encountered many challenges and failures but due to his consistent efforts and guidance from Dr. Gopal Agarwal, Faculty-IIIT Surat, he was finally able to create a prototype to show in front of the whole world. According to him, it is very important to explore your life and surrounding to find inspiration and problems so that a person can take it as a challenge and present its solution in form of reality.

The interview was concluded by the final message of Mr. Jayeshh for the juniors. He said

"Don't do what others are doing, choose your path individually and explore college life and do whatever you do like drama, photography, etc. because at the end you will acquire a set of skills which will make you different from others".

Contributors

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Connect with Us!

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