



Laxmi Singh Charitable Trust's (Regd.)

THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY

Autonomous College Affiliated to University of Mumbai

Approved by All India Council for Technical Education (AICTE) and Government of Maharashtra (GoM)

Conferred Autonomous Status by University Grants Commission (UGC) for 10 years w.e.f. A.Y 2019-20

Amongst Top 200 Colleges in the Country, Ranked 195th in NIRF India Ranking 2019 in Engineering College category

• ISO 9001:2015 Certified • Programmes Accredited by National Board of Accreditation (NBA), New Delhi

• Institute Accredited by National Assessment and Accreditation Council (NAAC), Bangalore

Website : www.tcetmumbai.in

REPORT

Date: 05/03/2021

International Conference on Trends in Electronics & Communication - 2021

- **Conference Dates:** 26th & 27th February 2021
- **Conference Venue:** Thakur College of Engineering & Technology, Kandivali (E), Mumbai-400101, Maharashtra, India
- **About the Conference:**

Electronics and Communication Engineering plays a very vital role in the revolution as it is the amalgamation of the VLSI, Devices and Modelling, Nanotechnology, Automation, Robotics and Control, Embedded systems and lot Communication and Antennas and Signal Processing. To deliberate on these emerging technologies, TCET proposes to organize MULTICON-W 2021 during 26th & 27th February 2021. It is an initiative of TCET, offers multiple platforms for all the stake holders under one roof to contribute their original research work. International Conference on Trends in Electronics and Communication (IC-TELCON) aims to bring together researchers, engineers and scholar students to exchange and share their experiences, new ideas and research results about all aspects in the field of Electronics Engineering and Communication.

The tracks of the conference included:

1. *Communication Engineering (CE)*
2. *Signal Processing & Applications (SPA)*
3. *Embedded Systems & Internet of Things (ES&IoT)*
4. *Automation, Robotics and Control (ARC)*

I. Keynote Addresses:

IC-TELCON 2020 encompassed one keynote address on Day 1 (26th February 2021)

Day 1, Keynote Address:

Topic: A Deep Dive into the Social Aspects of IoT

Speaker: **Dr. Himadri Nath Saha**, Head of the Department, Computer Science, SNEC, Calcutta University

No. of Participants: 44

Overview: Social IoT (SIoT) is an emerging paradigm of IoT in which different IoT devices interact and establish relationships with each other to achieve a common goal. In essence, SIoT adapts a service-oriented architecture where heterogeneous IoT devices can offer or request autonomous services and collaborate on behalf of their owners. The objectives being pursued by the Social Internet of Things (SIoT) paradigm are clear: to keep separate the two levels of people and things; to allow



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objects to have their own social networks; to allow humans to impose rules to protect their privacy and only access the result of autonomous inter-object interactions occurring on the objects' social network. SIOs is being accelerated to becoming one of the most popular future application paradigms by many state-of-the-art, quickly developing technologies, just name a few: IP-enabled embedded devices and smart objects, short range and long range communication technologies, data collection, analysis, processing and visualization tools from big market giants and its multifaceted advantages in network navigability, scalability, evaluation of objects' trustworthiness, service composition, object discovery, behaviour classification and prediction.

II. Resource Person Feedback:

1. **Dr. Himadri Nath Saha** (Head of the Department, Computer Science, SNEC):
 - Arrangement of such events even in pandemic situation is highly appreciable.
 - Commendable work done by the entire team.
2. **Dr. J. H Nirmal** (Professor & HOD-Electronics Department, K.J. Somaiya COE):
 - Excellent event.
 - Very nice efforts taken.
3. **Dr. Samarjeet Borah** (Professor & Head IT council, SMIT):
 - Commendable efforts in organizing IC-Telcon 2021 in online mode.
 - Excellent event.
4. **Dr. Maniroja** (Professor-Electronics & Telecommunication, TSEC):
 - Great participation in offline sessions under the pandemic situation.
 - Great ideas presented by the participants
5. **Dr. Shikha Nema** (Professor-HOD-Electronics & Communication, UMIT):
 - Excellent opportunity for students to broaden their horizon.
 - Appreciated a lot the authors for their research
6. **Dr. Kishor Kinage** (Professor-E&TC, PCCOE):
 - Great efforts taken by faculty and students.
 - Excellent event and good presentations
7. **Dr. B. Gopi** (Professor & Dean, Muthayammal Engineering College):
 - Arrangement of such events even in pandemic situation is highly appreciable.
 - Commendable work done by the entire team.
8. **Dr. R. B. Lohani** (Principal, Goa COE):
 - Very nicely arranged event in blended mode.
 - Nice efforts by entire team.



9. **Dr. Sujata Kale** (Associate Professor-Applied Electronics, SGBAU):

- Papers from diverse fields.
- Research on real time applications is commendable.

III. Conference Participation Details:

Paper Details	TCET	External	Total
Total Papers Received:	141	17	158
Total Papers Registered:	68	7	75
Total Papers Scheduled:	135	16	151
Total Papers Presented out of Scheduled:	61	4	65
% Presentation out of registered:	89.71	57.14	86.67

• **Paper count and bifurcation**

	E&TC	ELEX
SE:	29	1
TE:	34	3
UG:	46	23
PG:	2	-
FACULTY:	3	-
EXTERNAL:	17 (including 3 international papers)	

Internal:	141
External:	17
TOTAL	158

• **Track Wise paper segregation:**

Tracks	Count
Signal Processing & Applications (SPA)	44
Communication Engineering (CE)	20
Embedded Systems & Internet of Things (ES & IoT)	45
Automation, Robotics and Control (ARC)	49

IV. Conference Evaluation Details:

After a thorough evaluation of papers presented, the session chairs identified the following papers as the most contributive papers:

• **Details of Most Contributive External Papers Identified by Session Chairs:**



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Sr. No.	Paper ID	Paper Title	Author Names	Affiliation	Strength	Session Chairs
1	40	A Three Port Microstrip-Fed Antenna for UWB-MIMO Diversity Applications	Raj Kumar	ARDE, Pune	Good implementation	Dr. Sujata Kale Dr. Lochan Jolly Mr. Hemant Kasturiwale
2	53	A Four Port UWB Antenna for Diversity Applications	Raj Kumar	ARDE, Pune	Innovative Work	Dr. J.H. Nirmal Dr. Vinitkumar Dongre Ms. Poorva Waingankar
3	84	Adaptive Blending Control Design Based on Soft O2 Sensor Measurement	Sheng Zeng, Abhijit Barman	Alcon Inc., California, USA	Good presentation and implementation	Dr. Shikha Nema Dr. Payel Saha Dr. S. C. Patil

• **Details of Most Contributive Internal Papers (Final-year students) identified by Session Chairs:**

Sr. No.	Paper ID	Paper Title	Author Names	Strength	Session Chairs
1	81	An Enhanced System for Restoration and Value Maximisation of Images using Prior and Generative AI-Based Models	Disha Revandkar, Shivani Srivastava	Good teamwork and presentation Good presentation and work done is impressive	Dr. Sujata Kale Dr. Lochan Jolly Mr. Hemant Kasturiwale
2	103	Design and Development of Intelligent Traffic Lights Control	Anjali Singh, Hrishu Singh	Good idea	Dr. Sujata Kale Dr. Lochan Jolly Mr. Hemant Kasturiwale
3	94	Design and Implementation of False Currency Detection System using UV Detection and Image Processing	Yash Majalkar, Abhishek Mishra	Good idea	Dr. Sujata Kale Dr. Lochan Jolly Mr. Hemant Kasturiwale



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4	37	Indoor Navigation System for Smartphone using Wireless Hotspot	Aman Sahu, Adarsh Singh	Good presentation and work done is impressive	Dr. J.H. Nirmal Dr. Vinit Kumar Dongre Ms. Poorva Waingankar
5	62	Automated Minnesota Dexterity Test for Physiotherapeutic Applications	Harsh Kudtarkar, Madhul Chand	Overall good work and team looks confident of their skills.	Dr. Mani Roja Dr. Sangeeta Mishra Mr. Sanjeev Ghosh
6	77	Breast Cancer Detection Using Genomic Data	Sanjana, Rohit Singh	Good concept. It will be good if implemented practically.	Dr. J. H. Nirmal Dr. Sandhya Save Mr. Sanjeev Ghosh
7	28	University Predictor for Admission Applications	Naman Joshi, Vivek Gupta	Good background knowledge	Dr. J. H. Nirmal Dr. Sandhya Save Mr. Sanjeev Ghosh
8	92	Autonomous Water Surface Garbage Collector	Ritik Chaurasiya, Mukesh Choudhary	Good concept and work	Dr. Samarjeet Borah Dr. Payel Saha Mr. Hemant Kasturiwale
9	101	Online Handwritten signature verification using multilayer perceptron neural networks	Vidhi Kokane, Hiral Pal	Good Teamwork	Dr. Sujata Kale Dr. Lochan Jolly Mr. Hemant Kasturiwale
10	125	Product Price Prediction using Machine Learning with Image Processing	Pearl Kothari, Niyati Morkhiya	Nice Presentation	Dr. Sujata Kale Dr. Lochan Jolly Mr. Hemant Kasturiwale

• **Details of Most Contributive Internal Papers (SE & TE) identified by Session Chairs:**

Sr. No.	Paper ID	Paper Title	Author Names	Strength	Session Chairs
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1	5	COVID-19 Spread Analysis	Atif Khan, Mansi Mistry	Good teamwork and presentation Good presentation and work done is impressive	Ms. Archana Deshpande Ms. Sujata Alegavi
2	6	Measuring Calories and Nutrition from Food Images	Punit Savlesha, Atul Tiwari	Good idea	Ms. Archana Deshpande Ms. Sujata Alegavi
3	7	Brain Tumor Detection using Image Segmentation	Amogh Johari, Rahul Pandey	Good idea	Ms. Archana Deshpande Ms. Sujata Alegavi
4	15	Low Cost Heart Beat Measurement System and Oximeter	Kirti Moily, Nivedita Mishra	Good presentation and work done is impressive	Ms. Archana Deshpande Ms. Sujata Alegavi
5	60	Website for Infographics of New Education System.	Roshini Kini, Shweta Chavan	Overall good work and team looks confident of their skills.	Dr. S. C. Patil Mr. Shailendra Shastri
6	129	Melanoma Cancer Detection using Deep Learning	Adwait Raut, Mukul Gupta	Good concept. It will be good if implemented practically.	Dr. S. C. Patil Mr. Manoj Chavan
7	134	Indoor tracking using beacon	Raunak Singh Matharu, Girik Tripathi	Good background knowledge	Ms. Poorva Waingankar Cdr. Vijay Pratap Singh
8	138	Sign Language Recognition System	Jagdish Lohar, Rohit Pal	Good concept and work	Ms. Poorva Waingankar Cdr. Vijay Pratap Singh
9	152	Fire Fighting Robot Through High Resistance Robot	Fatima Momin, Esha Ambhire	Good Teamwork	Ms. Sonia Behra Ms. Archana Belge
10	38	Abigyata : Let's change the way we perceive mental health.	Vedant Panchal, Ananya Srivastava	Nice Presentation	Dr. Shikha Nema Dr. Payel Saha Dr. S. C. Patil



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- **Scope of Improvement in Paper Preparations and Presentations:**

The goal of the conference is to create a world-class forum for discussing cutting edge research, and directions for new innovations and technology. To accomplish the goal in paper presentations by internal students, following improvements are suggested:

1. Research papers including result and discussion can be given preference in selection process.
2. Research papers from reputed journals and more than 5 citations can be considered for the references by the researchers to improve the quality of work.

V. Feedback Survey:

- **Findings from the survey:**

The survey conducted on Day 1 and Day 2 shows that proper conduct of the conference. Some of the major appreciations include:

1. Well organized conference.
2. Opportunities for researchers to present their ideas.
3. Lot of good suggestions received by the experts.
4. Excellent knowledge sharing platform.
5. Good keynote speech on recent innovations in IoT.

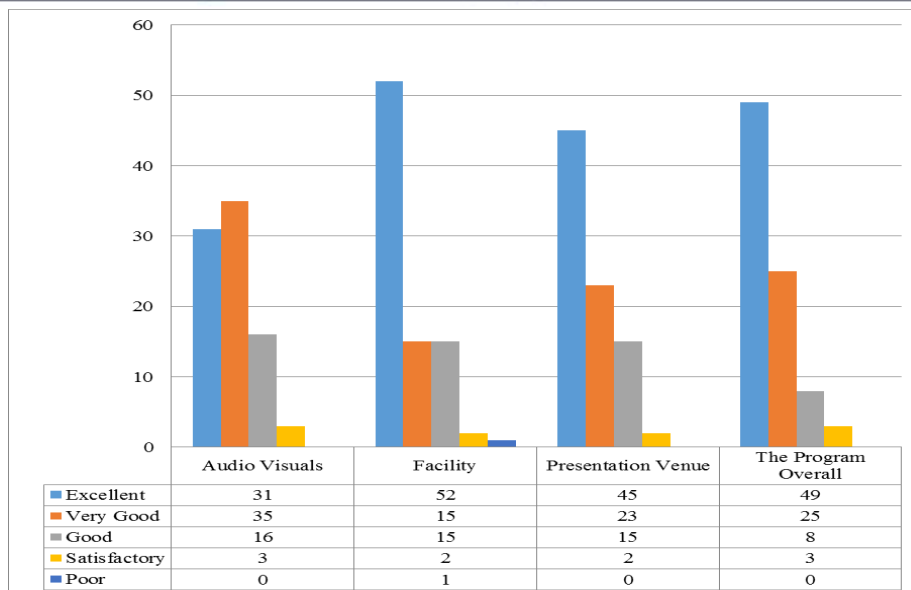
- **Recommendations:**

1. Concepts are very good, but hardware efforts are not made.
2. Some papers had very basic presentation topics. Application and implementation-based explanation is needed.
3. Certificates should be provided to all members of group who pay full registration fees (with no additional cost).

- **Feedback**

Rated very high with the following notes from the delegates:

1. Excellent Coverage, Good Technical Presentation
2. Great online support and proper guidance by coordinators and committee
3. Cooperative staff members, Conducive environment
4. Good Affiliation for the Proceedings publication



VI. Session Chairs for Presentation:

• Externals:

1. Dr. Himadri Nath Saha (Head of the Department, Computer Science, SNEC)
2. Dr. J. H Nirmal (Professor & HOD-Electronics department, K.J. Somaiya)
3. Dr. Samarjeet Borah (Professor & Head IT council, SMIT)
4. Dr. Maniroja (Professor-EXTC, Thadomal Shahani Engineering College)
5. Dr. Shikha Nema (Professor-HOD-Electronics & Communication, UMIT)
6. Dr. Kishor Kinage (Professor-E&TC, PCCOE)
7. Dr. B. Gopi (Professor & Dean, Muthayammal Engineering College)
8. Dr. R.B. Lohani (Principal, Goa COE)
9. Dr. Sujata Kale (Associate Professor-Applied Electronics, SGBAU)

• Internals (UG and External Papers):

1. Dr. Lochan Jolly (Technical Chair, Professor, Dean, E&TC)
2. Dr. Payel Saha (Convener, Professor, E&TC)
3. Dr. S. C. Patil (Jt. Convener, Dy. HOD, ELEX)
4. Mr. Sanjeev Ghosh (Co. Convener, Dy. HOD, E&TC)
5. Mr. Hemant Kasturiwale (Co. Convener, Dy. HOD, ELEX)
6. Dr. Sandhya Save (Professor, ELEX)
7. Dr. Vinitkumar J. Dongre (Professor, E&TC)
8. Dr. Sangeeta Mishra (Associate Professor, E&TC)
9. Ms. Poorva Waingankar (Associate Professor, ELEX)



- **Internals (SE and TE Presentations)**

1. Mr. Shailendra Shastri (Assistant Professor, E&TC)
2. Mr. Manoj Chavan (Assistant Professor, E&TC)
3. Ms. Kalwati Patil (Assistant Professor, E&TC)
4. Ms. Sonia Behra (Assistant Professor, E&TC)
5. Ms. Archana Deshpande (Assistant Professor, E&TC)
6. Ms. Jyoti Kori (Assistant Professor, ELEX)
7. Ms. Sujata Alegavi (Assistant Professor, ELEX)
8. Ms. Archana Belge (Assistant Professor, ELEX)
9. Cdr. Vijay Pratap Singh (Adjunct Professor, E&TC)

- **Internals (TE – RBL Presentations):**

1. Ms. Megha Gupta (Assistant Professor, E&TC)
2. Mr. Nikhil Tiwari (Assistant Professor, E&TC)
3. Ms. Purnima Chandrasekar (Assistant Professor, E&TC)

VII. Key arrangements

- **Venue arrangement:**

- i. Offline Paper presentation: 513 (5th Floor)
- ii. CE, SPA, ES&IoT, ARC track paper presentations: Online on Zoom
- iii. Online SE/TE paper presentation: Online on Zoom
- iv. Inaugural function and Valedictory function: Seminar Hall -1 (4th Floor), Zoom
- v. Keynote: Online on Zoom
- vi. Food arrangement: TSAP, Multipurpose Hall

VIII. Events Attendance

Participation		Participants / Delegates		
Sr. No.	Event	Day 1	Day 2	Day 1 + Day 2
1	Keynote address	44	-	44
2	Inaugural & Valedictory Function	44	38	82

IX. Conference Statistics:

Papers Received	158
Total Paper Registered	75
Total Paper Presented	65
Total Authors	448
Camera Ready Copy	80

- **Two Days Presentation Details:**



1. Total Papers Received: 158 (448 Authors)
2. Total Papers Scheduled: 151/158 (95.57%)
3. Total Papers Registered: 75/158 (47.47%)

• **Day 1: 26th February 2021**

Offline / Online Sessions	Actual / Planned presentation	Attendance	Percentage
Zoom Link 1 (Afternoon)	8/11	22	72.73%
Zoom Link 2 (Afternoon)	9/13	31	69.23%
Offline Session - 513 (Afternoon)	8/8	16	100.00%
Zoom Link 1 (Evening)	5/15	16	33.33%
Zoom Link 2 (Evening)	11/12	31	91.67%
Zoom Link 3 (Evening)	6/8	18	75.00%
Total	39/67	134	58.21%

• **Day 2: 28th February 2021**

Online Sessions	Actual / Planned presentation	Attendance	Percentage
Zoom Link 1 (Morning-I)	5/9	13	55.55%
Zoom Link 2 (Morning-I)	9/11	31	81.81%
Zoom Link 3 (Morning-I)	5/8	15	62.50%
Zoom Link 1 (Morning-II)	5/9	19	55.55%
Zoom Link 2 (Morning-II)	2/11	7	18.18%
Zoom Link 3 (Morning-II)	1/8	3	12.50%
Zoom Link 1 (Afternoon)	1/9	3	11.11%
Zoom Link 2 (Afternoon)	5/8	20	62.50%
Zoom Link 3 (Afternoon)	3/9	8	33.33%
Total	36/82	119	43.90%

X. SWOC Analysis:

1.	Strength	<ol style="list-style-type: none"> 1. 58.21% of the scheduled papers presented 2. Smooth conduction of sessions. 3. SE students were inculcated to attend workshops on “Data Science”, “Arduino”, “Blender” and “Python” 4. TE students prepared technical papers based on Research based projects. 5. International authors contributed as stakeholder involvement. 6. Arrangements and scheduling of event were well executed as planned. 7. Participation of SE, TE and BE students were 95% and above. 8. Presentations were taken on Online and Offline in blended mode.
2.	Weakness	<ol style="list-style-type: none"> a. The papers presented were in initial stage of research.



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		<p>b. Online conferences lack one to one communication and interaction.</p> <p>c. Restriction on presenting paper due to pandemic situation.</p>
3.	Opportunities	<p>1. Publicity can be started 6-8 months in advance to get good papers so that authors get good time to do research</p> <p>2. Listing this event would boost our branding with various institutes all over the world</p> <p>3. Ability for attracting more external from various states of India and world</p> <p>4. This event would offer the platform for academic, research and practitioner community to promote and share the research ideas to drive "Make in India"</p> <p>5. Add more people from outside India in the conference committee</p>
4.	Challenges	<p>1. Growing number of conferences by nearby institutes</p> <p>2. Less participation from external delegates and industry experts</p> <p>3. Less sponsorship offered by external institutions</p> <p>4. International bodies are reluctant for the affiliation, mainly due to quality of papers</p> <p>5. Detecting and correcting plagiarized papers</p> <p>6. Involvement of alumni's and stake holders</p>

Prepared By:

Sd/-

Ms. Rutvi Thakar (E&TC)
(Coordinator – IC TELCON 21)

Checked By:

Sd/-

Mr. Sanjeev Gosh (E&TC)
(Co-Convener – IC TELCON 21)

Proposed By:

Sd/-

Dr. Payel Saha (E&TC)
(Convener – IC TELCON 21)

Sd/-

Ms. Sujata Alegavi (ELEX)
(Co-Coordinator – IC TELCON 21)

Sd/-

Mr. Hemant Kasturiwale (ELEX)
(Co-Convener – IC TELCON 21)

Sd/-

Dr. S. C. Patil (ELEX)
(Jt. Convener – IC TELCON 21)

Reviewed and Recommended By:

Sd/-

Dr. Lochan Jolly
(Dean SSW and Technical Chair –
IC TELCON 21)

Sd/-

Dr. Deven Shah
(Vice-Principal and Program Co-
Chair - IC TELCON 21)

Approved By:

Sd/-

Dr. B. K. Mishra
(Principal & Program Chair –
IC TELCON 21)