



## Message from Editor

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Dear readers,

We are presenting the fourth quarter issue of India Council Newsletter (ICNL) for the year 2019. This current issue of ICNL is of 136 pages and features 18 articles. To facilitate easy downloading, the issue is presented in two parts – Part 1, having regular items such as messages, activity reports, usual columns such as IT Happenings, Information Resources, Books, Book Excerpts and Announcement and Part 2 featuring contributed articles by professionals and academic community.

ICNL extends hearty congratulations to India Council, various Sections for receiving the incentive from R10 for their performance in 2019. Our congratulations to all the award winners during the INDICON-2019 held at Marwadi University Rajkot, Gujarat. (The entire list is published in the Secretary's report in this issue). We are really proud of our winners.

ICNL thanks the organisers/ & chairs of the Bangalore, Kerala, Madras, Hyderabad, UP Sections for sending their section related activity reports as per guidelines. We also thank Vice Chair, IC SAC for the report on AISYWC-2019. Our thanks to Mr Puneet Mishra, IC Secretary for the excellent and comprehensive report on India Council activities for the year 2019. and Dr. S.N. Singh, IC Chairman for the support in facilitating these reports. We note that only few activities are reported out of numerous events conducted across the Sections. We will be happy to publish the reports of all activities if received from the organizers/sections directly at the newsletter email id [ieee.icnl@gmail.com](mailto:ieee.icnl@gmail.com) as per the guidelines published in the newsletter elsewhere and also available at <https://goo.gl/DcVPmx>

ICNL thanks the authors who have enthusiastically responded to our request and contributed the following informative and interesting articles included in this issue in Part 2.

1. Importance of Lithium-Based Energy Storage in Achieving India's Climate Goals by N. Vedachalam, G. A. Ramadass & M. A. Atmanand
2. Norbert Wiener and his Impact on India by Prof. T V Gopal & Prof. Greg Adamson
3. Use of IOT in Container and Shipping Industry and its impact on Global Trade by Mr. Sunil David
4. Deep Learning meets Coding Theory by Dr. Sreeram Kannan & Dr. Himanshu Asnani
5. Disrupting Primary Healthcare Industry with Artificial Intelligence, Computer Vision, and IoT Enabled Engine by Mr. Mayur Ramgir
6. Digital Transformation: The New Oil: Refineries and Engines to Tap into this Source of Power by Mr. Venkat Krishna
7. Enterprise Master Data Strategy: Deprived Master Data & Remedies by Mr. Subbaiah Bala
8. Best practices for testing AI solutions by Mr. Sojan George & Mr. Rajeev Mullakkara Azhuvath
9. Using AI on IoT Sensor Data - for predicting health of man and machine by Dr. Arpan Pal
10. State of Telecom: A journey to 5G in India by Ashok Subramanian
11. Cognitive Radio Technology for Sub-6 GHz 5G Communications by Dr. Raghendra Kumar Chaudhary
12. What are Micro Frontends by Mr. Santhosh Krishnamurthy
13. Mining the Powers of Open Source: A Case-Study on Usage of Open Source in Institutions by Dr. S. Mercy Shalinie & Ms. Nagarathna Ravi
14. Why India must amend its Information Technology Act in the age of Artificial Intelligence by Dr. Chandrika Subramanian
15. A note on Interesting Facts on Information Retrieval Systems by Dr. S. Sridhar & Dr. S. Padmakala
16. Blowing the Whistle on Data Breaches and Cybersecurity Flaws by Ms. Hamsa Mahendranathan & Mr. Chris McLamb
17. Get your TNA (Training Needs Analysis) done – Why? by Mr. M. K. Anand
18. Holistic Digital Empowerment for Unleashing Human Excellence by Mr. Lakshman Pillai

ICNL wishes to reiterate that these articles published in this issue are not peer reviewed and are also not checked for plagiarism for which the authors are responsible. Further, the views expressed in these articles are that of the authors and ICNL is not responsible for any consequences of using the information provided in them.

We are happy to have published briefs on the following books and thank the publishers for providing copies of the books.

- Achieving Lifetime Employability
- Technical Communication
- Career Development All-in-One For Dummies
- Blockchain For Beginners
- Engineering Economy and Management
- Information Systems Security

- Virtual & Augmented Reality For Dummies
- Enriching Your English
- Moral Fiber: A Practical Guide to Living Our Values
- 21 Difficult Conversations
- Information Technology - Law and Practice
- Law Relating to Intellectual Property Rights
- From Start-Up to Global Success: The Zensar Story

We are also happy to have included excerpts from the book “Achieving Lifetime Employability” with the permission of the author.

Chairman Dr. S.N. Singh has provided a comprehensive message highlighting the flagship event of IC – INDICON-2019, the IC awards etc., The” What’s hot in IT - An Indian Perspective” a regular column by Prof. S. Sadagopan, Director, IIIT Bangalore provides a broad overview on various important happenings in the IT and Telecom sectors in India during Sep-Nov 2019. We are sure that readers will find the information and the related links provided in the column “Information Resources” compiled by the editor Mr. H.R. Mohan will be of interest to ICNL readers. We wish to add that “Interesting Reads”, a regular blog post published once a week by him (the source from which the matter for the Information Resources is compiled) may also be of interest to our readers The archives of these blog posts can be accessed at <https://goo.gl/VGXizd> We have added some reference information at the end of few articles and effectively utilised the white space. To provide relief from the serious matter, few cartoons, titbits, quotations, news bits are also included which we are sure will interest the readers.

We wish to remind our readers to renew their membership for the year 2020 n time and continue to have undisturbed service from IEEE and enjoy the membership benefits. We request the members to encourage new membership among their contacts.

ICNL wishes to acknowledge various internet sources for the information presented in this issue of the newsletter. Our exclusive thanks to inshorts (<https://www.inshorts.com>) and Mr. Sunil Agarwal & Mr Ajit Ninan for the permission to use their thought provoking cartoons appeared in Times of India.

**ICNL wishes all its readers advance happy and prosperous New Year 2020**

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### Conference Announcements

EMPRA 2020 is a workshop and doctoral symposium on "Electromagnetics and Microwave Engineering: Pedagogy, Research Trends and Applications" being held at BITS-Pilani, Hyderabad Campus during Jan 2-4, 2020. More at <http://sites.bits-hyderabad.ac.in/emp/emp/emp/>

AISP'20 - International Conference on Artificial Intelligence and Signal Processing is organized by the Vellore Institute of Technology-Andhra Pradesh and IEEE Guntur sub-section from 10-12th January 2020 with Technical Co-sponsorship by IEEE Hyderabad Section, India. More at <http://www.aisp2020.in/>

First International Conference on Urban Data Science: Theme: Smart Cities is being held at IIT Madras during 20-21, Jan 2020. This event is supported by IEEE Computer Society Madras Chapter, IEEE Smart Cities, IEEE Standards Assn, IEEE TEMS, SETS, CloudMOOL CII, IIT Madras Research Park and ACM Chennai Chapter, ACM India. More at <http://dos.iitm.ac.in/UDS2020/>

An International Conference on Electrical and Electronics Engineering (ICEEE 2020) is being jointly organized by Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur (Uttar Pradesh), India and North Dakota State University, Fargo, USA in collaboration with IEEE UP Section, at MMMUT Gorakhpur (UP), India during February 14-15, 2020. More at <http://www.mmmut.ac.in/iceee2020/>

2nd International Conference on Data Science, Machine Learning & Applications is being held during 3-5 Apr 2020 at Pune. More at <https://www.icdsmla.com/>

The 3rd 21st Century Norbert Wiener Conference is scheduled at the CEG Campus, Anna University between 23 – 26 July 2020. More at <http://21stcenturywiener.org/>

IEEEHYDCON-2020 is the biennial signature conference of IEEE Hyderabad Section. For the first time it is being organised on 11-12 September 2020 at Hyderabad, India on the theme "Industry 4.0".. More details at <http://www.ieeehydcon.org/about/#hydcon-2020>