

News@ComSoc Bangalore

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ABOUT IEEE COMSOC CHAPTER BANGALORE NEWSLETTER

The IEEE ComSoc Chapter Bangalore Newsletter includes news useful to its members, non-member and highlights most important technology development. It also highlights important concluded and upcoming events. Links for few important topics from current issue of IEEE Communication Magazine are also embedded.

EDITOR MESSAGE

Dear readers

I am pleased and happy to work as editor of the news letter of IEEE ComSoc Bangalore section. We are delighted to launch the 4th issue of IEEE ComSoc news letter Bangalore section. I would like to thank the chair and ExCom for giving me this opportunity in bringing the fourth issue of the news letter. The news letter highlights the activities achievements carried out in the past six months. We also have included the articles of current trends and non technical article in communication community and job opportunity, higher education information in both national and international. We are more than happy to receive for more articles from various streams in the field of communication, technical research, social awareness to be published in coming next issues.

Suggestions are welcomed.

With warm regards

Triveni.C.L

News letter Editor, IEEE ComSoc Bangalore Chapter

trivenicl@ieee.org

CHAIRMAN MESSAGE

DEAR IEEE MEMBERS,

We are in the second year of this newsletter.

This is one of the recent initiatives of ComSoc Bangalore. There are many new initiatives being planned and slowly executed. I am not discussing them in this column but I would definitely like to highlight the "T-TIME Charcha", that is, Tea/coffee – Technology Innovation, Management and Entrepreneurship event. Additionally, the **Graduate Congress: GraTE'7'**. I urge all graduated students of 2018 PhD and ME/M Tech to apply and all graduating student can attend. The graduate thesis evaluation in 7 min is very interesting and carries award and prizes for 7 best thesis from Karnataka and Kerala states.

Coming back to newsletter related, I would like to sincerely thank the readers for their feedback and interest in this newsletter/magazine. We have been receiving many articles requesting to include; perhaps, we may have to increase the length in future.

I congratulate and thank all the contributors and companies who extended their support in bringing this Newsletter. I sincerely thank our team and Ms. Triveni in particular who has worked very hard to compile the contents and material in bringing this up.

I am sure that with the help of active IEEE volunteers, we will able to keep the momentum in publishing attractive IEEE ComSoc Bangalore India Newsletter in the months and years to come.

With warm regards,

Navin Kumar, PhD

Chairman, IEEE ComSoc Bangalore Chapter

navinkumar@ieee.org



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ABOUT IEEE COMSOC AND COMSOC BANGALORE CHAPTER

Since IEEE Communications Society (ComSoc) began operations in January 1972 (IEEE founded in 1963) as an independent Society of The Institute of Electrical and Electronics Engineers (IEEE) with over 32,000 members, IEEE ComSoc has become the premier international forum for the exchange of ideas on communications technologies and information networking.

IEEE ComSoc has evolved into a diverse group of global industry professionals with a common interest in advancing all communications technologies. Members interact across international and technological borders to: Produce publications; Organize conferences; Foster educational programs; Promote local activities; Work on technical committees.

IEEE GLOBECOM, IEEE ICC, and other conferences have earned international reputations. Publications increasingly support local and international coverage of important issues, and the Board of Governors reflects the changing direction of global communications technology.

Volunteer members of+ the society shape the course of IEEE ComSoc, its publications, technical activities, and conferences while the society's strength comes from the vision and dedication of its members and staff.

IEEE ComSoc members stay on top of the world of communications technology by accessing up-to-the-minute technical information, networking with other experts in the field, and leveraging many other exclusive benefits.

Formed in 2008 by an initiative from Prof T Srinivas, IISc, ComSoc Bangalore chapter has evolved and currently enjoys around 300 professional members from academia and industry. Today, ComSoc Bangalore chapter is one of the most vibrant and dynamic chapters with a large number of expert volunteers performing diverse tasks for the growth of the society and lives of the people. ComSoc Bangalore Chapter is known for the quality event. A huge support is extended to ComSoc chapter and volunteers by industry around.

IMPORTANT EVENTS (JUNE 2018 – DECEMBER 2018):

EVENT NAME	DATE AND MONTH	VENUE
1st T-TIME Charcha	26/06/2018	JUiCubator, Bangalore, Karnataka, India
5G Technology Workshop	29/06/2018	Mac Sterlings Hotel, Old Airport Road, Bangalore, Karnataka, India
Workshop on Evolution of Data Center in Context of 5G	27/07/2018	Wipro Limited, Electronic City II, Bangalore, Karnataka, India
Cloudification and Network Slicing in 5G	11/08/2018	L5 Building, Nokia Network, Bangalore, Karnataka, India
2nd T-TIME Charcha	18/08/2018	R G Royal Hotel, Near ISKON Temple, Yeswanthpur, Bangalore, Karnataka, India
2-days Research Methodology IEEE AuthorshipLab workshop	07/09/2018	NIE Institute of Technology, Mysuru, Mysuru Bangalore, Karnataka, India
Recent Innovative Technologies in Communication	13/10/2018	ECE Dept, MCE Hassan, Karnataka, India
3rd T-TIME Charcha	20/10/2018	Reliance Jio Office, Residency Road, Bangalore
Smart City Workshop	16/11/2018	Mac Sterlings Hotel, Bangalore, Karnataka, India
Intelligent Transportation Systems workshop	16/11/2018	Wipro Limited, Electronic City II, Bangalore, Karnataka, India

NEW INITIATIVE BY COMSOC BANGALORE

RESEARCH METHODOLOGY WORKSHOP SERIES

Research Methodology Workshop Series is an initiative by IEEE ComSoc, Bangalore. This year we have conducted two workshop series one during May 2-3, 2018 at Dayananda Sagar College of Engineering, Bangalore and another during 7-8th Sept, 2018 at NIE, Mysore. This workshop has become a platform for real knowledge distribution and let the young research scholars to understand the process involved in doing research starting from problem definition to peer review process. This workshop is expected to give a tutorial like session on different topics like How to define a problem, how to do research, how to publish and how to do peer review. This event has been a great success and participants from different cities who attended would like to request organizing committee to continue. We plan at least 3-events every year with one of them to be outside Bangalore. Organization, institutions who are interested in hosting the event, kindly get in touch with Chair/Secretary ComSoc.



T-TIME CHARCHA SERIES

Tea/Coffee – Technology Innovation, Management and Entrepreneurship (T-TIME) Charcha (discussion) is a new innovative initiative by ComSoc Bangalore. The event is scheduled on every alternate month starting from June 2018 preferably in Industrial Corridor/location. The event is FREE for all (members and nonmember) however, they need to register online. The event will be Half Day starting from 1:30pm or 2:00pm to 5pm. It will have 3-4 expert talks and discussion. The event is sponsored and organized by ComSoc Bangalore. We had conducted three T-TIME CHARCHA series, one at JUICubator, second at R G Royal Hotel, Near ISKON Temple, and lastly at Reliance Jio Office, Residency Road, Bangalore. We had good feedback for this event and we will be happy to organise such type of events many more in coming years.



Visit Page 10 for **GRADUATE CONGRESS: GraTE'7**

Dear Reader, we plan to dedicate this page for 5G Tutorial Series. Starting from the basic, I would like to continue discussing about 5G Cellular System and Technologies in sequence (starting from Part 1, Part 2,). The tutorial will be in continuation from the previous issue. I hope, we will go in parallel with ongoing 5G research and development. It is believed that the reader will gain better understanding of 5G Cellular System if they follow the tutorial. In this Part 1, we start with the basic definition, important specifications and in part 2 the requirements of 5G is addressed and in part 3 evolution of wireless mobile technology of 5G is answered. In this issue we focus on device-to-device technology. I would welcome any suggestion from you.

Navin Kumar, PhD, Associate Professor, Amrita School of Engineering Bangalore

5G TECHNOLOGY AND CELLULAR SYSTEM TUTORIAL SERIES: PART IV – ENABLING TECHNOLOGIES

In continuation with our discussion on the key technologies proposed to enhance 5G experience, we focus on the remaining two technologies, namely, advanced device-to-device (D2D) communication and advanced small cell network in this part of the tutorial series.

Device to device communication refers to direct communication between devices and is a general technique to offload data from core network. The devices in proximity can communicate over direct links with minimal participation of the extended NodeB (eNB). The advantages are enormous. For instance, the direct transmission improves link reliability, increases spectral efficiency and capacity. Since, the data is directly transmitted without the core network intervention, end-to-end latency is also reduced. Moreover, the small distances between the nearby devices allow power saving within the network. Advanced version of D2D communication is proposed lately for the two major 5G objectives namely; ultra-reliable low latency communication (uRLLC) which includes services like autonomous driving, remote surgery, factory automation and massive machine type communication (mMTC) which includes most of the IoT services.

To exploit this technology, one must also be aware of the underlying challenges. As is known, the multiple groups that communicate with each other in an advanced D2D communication system share the same resources, provided the interference between these groups is tolerable. Hence, an efficient interference management algorithm must be designed to control interference between the D2D users and cellular users. Other challenges include the allocation of shared radio resources, power control for communicating devices and above all, the security of communication. According to literature, one way of classifying the use cases of D2D communications is depicted in Fig.1.

The In-Coverage scenario is typically used for traffic offloading from local data services controlled by the core network. Here, the devices are in the coverage of cellular network and works in coordination with the core network. Relay coverage is a D2D scenario which can be used to extend the coverage of core network, thereby improving cell edge QoS. In Out-of-Coverage case, devices can communicate autonomously even in the absence of core network. This complete autonomous network architecture has multiple advantages over the architecture where BS assists D2D. Communication in terms of power optimization, spectrum reusability, coverage and latency. However, the latter benefits from the BS managing the spectrum allocation and interference management.

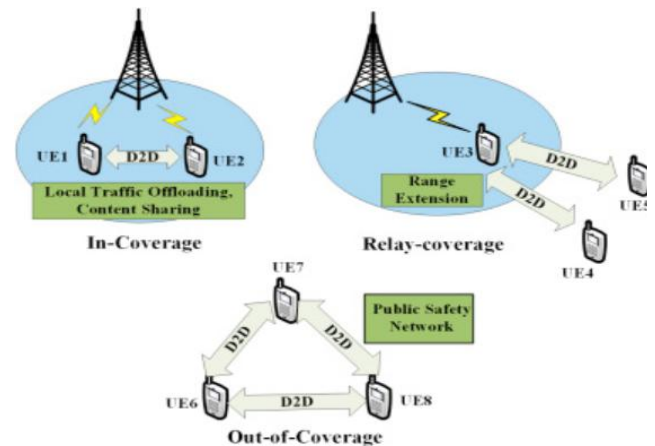


Fig. 1: Use cases of D2D communications

Cellular technology uses the technique of frequency reuse for improving capacity and spectral efficiency. As we know, cell splitting is an age-old technique of subdividing a congested cell into several smaller cells to address the heavy traffic requirement of urban areas. It relies on the simple principle of increasing the number of cells to increase the number of clusters and channels, thereby increasing capacity. However, cell splitting- a way of network densification- also includes the deployment of many base stations and the high infrastructure cost linked with it. As networks evolve to 5G, small cells will play a much higher role in meeting the increased demand for mobile voice and data traffic. Distributed and self-configuring network technologies will make it easy to deploy many small BSs in urban and suburban areas. These small cells, which are also known as micro, pico or femto cells depending on the cell radius, can greatly increase a macro cell's edge capacity, speed and coverage. Implementing a small cell also provides a human-safe low power signal as the small cell BSs transmit signals at a significantly low power, compared to macro BSs, to reduce interference. 5G operating at mmWave frequencies will inherently benefit from the high pathloss in implementing a small cell network architecture. The small cell BSs also called as compact BSs (C-BTS) are small size, light weight, easy to maintain BSs commonly deployed at relatively low height of 5-15m to cover a limited area of 100-200m radius. Even though these BSs can be made at very low costs and mounted with negligible rental costs, the major issue is how to backhaul these BSs (whether fiber or mmWave) and the cost of backhaul, especially in an outdoor environment.

Next part continues in next issue...

Sheeba Kumari M, PhD Scholar
Navin Kumar, PhD

IMPORTANT LINKS<http://www.comsoc.org/><http://www.comsoc.org/free-tutorials><http://www.comsoc.org/whitepapers><http://www.comsoc.org/training/training-calendar/road-5g><http://www.comsoc.org/tech-focus><http://www.comsoc.org/ctn/death-and-possible-rebirth-dsp><http://www.comsoc.org/comstandardsmag>http://www.ieee.org/about/volunteers/volunteer_index.html?WT.mc_id=dhtml_vol_see**GDPR AND ENTERPRISE MOBILE DEVICE
MANAGEMENT***Asha Joseph and John Singh K.**School of Information Technology and Engineering, VIT
University, Vellore***Introduction**

This article focuses on GDPR compliance requirements and methods applicable to Android and iOS devices used by employees in a typical organization.

Mobile Device usage Models for Enterprises

Mobile devices are used for managing customer data in an enterprise in two ways; - employee can either use a company owned device or he can use his own device. The software used by the administrator to manage mobile devices used for business is called as MDM (Mobile Device Management) software or EMM (Enterprise Mobility Management) software. An MDM/EMM software solution typically runs as a web application. There will be a client side on the mobile device itself. In this article, we focus on MDM/EMM client sides on iOS and Android and how they can be used to ensure compliance with various GDPR requirements such as strong PINs or passwords, encrypted storage, removal of unwanted data (device wipe off), control apps from accessing data and limit apps from sharing data.

Ensuring data security in iOS

Using MDM features in iOS, it is possible to enrol to an Apple approved MDM provider who typically runs an MDM server. Once enrolled, MDM server software can install a specific set of apps in all enrolled devices and configure them in such a way that the data flow in between them in a predefined way. The set of apps, installed and configured by MDM Server are called "Managed Apps". Using iOS MDM feature called "Managed Open-in", MDM can control the data flow between the Managed Apps.

E.g. MDM can prevent the email attachment in an organization's managed mail account from being opened by user's personal apps.

Ensuring Data Security in Android

In Android, an admin can install a Device Policy Controller (DPC) app on all managed devices that can create a "Managed Profile" or "Work Profile" in the mobile device. The apps and storage available to the Managed Profile is kept isolated by Android OS from the access of apps in the user's personal profile. This approach allows business apps and data completely separated from user's personal apps. All other devices control operations are remotely possible using the DPC app that acts as agent software in mobile.

Conclusion

The MDM/EMM architecture designed by Apple and Google defines an MDM/EMM server that can push policies. The architecture also requires a corresponding client side policy enforcement app that makes use of built in OS support for MDM/EMM features. This app can provide data and app seclusion (containment) between enterprise apps and the user's personal apps and data. This architecture can ensure all software related GDPR requirements for an enterprise that deploys mobile devices to handle business data.

References

1. The GDPR documentation: <https://eur-lex.europa.eu/eli/reg/2016/679/oj>
2. Android MDM developer guide: <https://developer.android.com/work/guide>
3. iOS MDM developer documentation: <https://developer.apple.com/business/documentation/MDM-Protocol-Reference.pdf>

EDGE COMPUTING

ADDING NEW DIMENSIONS TO 5G

Anagh Pandey,
Member of IEEE ComSoc

Edge computing is one of the 5G inherent and integral technology. Edge Computing is typically defined as a technology for **distributed computing by taking cloud to its physical edge**. The definition seems too vague to give a clear understanding of what edge computing is and the benefits it offers. In simpler terms, it is a multi-layered approach to cloud-computing.

There are going to be billions of computing devices hungry for storage and computational power. Also, 5G networks will cater a huge number of such devices which demand ultra-low latency. We can take the case of V2X communication. An autonomous vehicle traveling at a rapid pace will need fast processing to enable it to make quick decisions, which most of the times would be the difference between life and death. Any compromises in latency would lead to severe problems and hence won't be an option.

But, transmission of data to the cloud; meaning the data centres providing the computing power would certainly take time, because they'd physically be at a massive distance from the actual device which is mounted on the vehicle. This is the inception of the concept of edge-computing. What edge computing proposes/offers is the existence of micro data centres located at short distances with each serving a smaller number of devices. The local computational power which will be at a short distances from the devices (hence the term local) will provide for faster computation and ultra-low latency for devices on the 5G networks. In case there is a need for data to be processed at a high-end facility, the data will be transmitted to the cloud data centre for further processing.

Until now, the cloud computing and storage has been centralized and that has worked well for the existing number of devices and users because telecom technologies have mostly been used for human-to-human communication, but it won't be feasible enough for 5G. A counter-argument that can be made to the point is the presently existing number of IoT devices, which serve customers even today and are deployed for the purpose of automation. But what we need to understand is, that the usage of IoT devices is limited today, which is not going to be the same in the future. The future claims to be of connected living, which denotes the existence of IoT devices in every home, office, community, etc., and hence the existing technologies will not be enough to manage such traffic and variety of information.

What adding new dimensions is the possibilities and challenges that edge computing brings to technology, business and routine life. Some of them can be mentioned as:

- Ultra-low latency computation.
- Better revenue for companies who'd manufacture the computing hardware.
- Greater possibility for service providers for network and data security, as there'd be a far greater number of physical computing and storage devices and network interfaces to secure.
- Protocols required which would ensure data security throughout the edge computing ecosystem from the point-of-entry to storage to the point-of-exit of the data.
- Issues that need to be resolved before mass deployment of edge computing infrastructure include:
 - How to determine what data is processed locally and what is sent to the cloud data centre?
 - Does the micro data centre keeps a copy/replica of the data that is sent to the cloud data centre, in case there is data loss or loss of data integrity, or not?
- Tackle DoS, in case there is a surge of requests for data processing from multiple devices would be a challenge.
- Modularity would be offered to the cloud computing architecture.
- Security risks would result from outdated software and hardware can cause havoc. So, software and hardware updates for the cloud and micro data centre need to be in sync with each other.
- Methods that need to be designed for successful hand-off between micro data centers if the devices are mobile. Much like in cellular system, except in this case, the micro data centre would be processing greater amount of more complex data, than mere transmission, as in cellular systems.

CALL FOR THE HOST FOR COMSOC T-TIME CHARCHA

A unique and innovative idea Tea/Coffee - Technology Innovation, Management and Entrepreneurship Charcha (event) is conceived. A **FREE** half day event to discuss on the above topics by **Experts**. Host organization, preferably from Industry if willing to host, kindly contact us.

Dr Navin Kumar, navinkumar@ieee.org

Mr Anand.M (anand.m@ieee.org)

JOURNALISM IN THE AGE OF DIGITAL ERA: FAKE NEWS AND REAL CONSEQUENCES

Pragyan Parimita Barik
*Former Associate Editor at Yahoo!
Technology Enthusiast and EdTech Writer*

As world swings disturbingly towards evasion of norms and disinformation, the need for critical thinking is vital.

With the widespread use of the Internet, social media and blogs, access to content is at our fingertip, dominating almost all aspects of our daily life. With so many people now getting news from social media sites, many content creators/publishers have used this to their advantage, thanks to the proliferation of smart phones and cheap data packages.

The vast amount of information available online and the rise in fake news poses a serious threat of misvaluation of the information. This makes it more challenging to determine if the news is credible and if it can be trusted. Is it factual or biased?

Here are some of the examples of disinformation surfaced across the Internet that demonstrates how potent fake news has become.

“Amritsar train incident in which over 50 people died after train barrels through crowd celebrating Indian festival on October 19, 2018”.

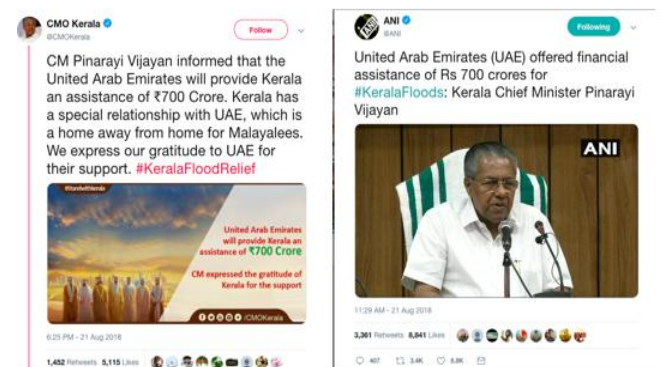
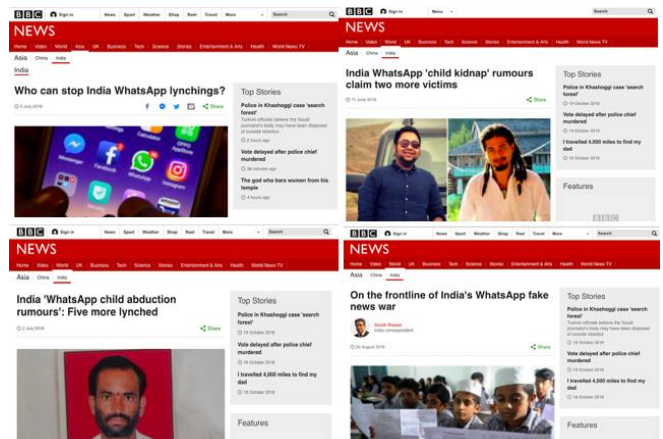
A screenshot of a fake image had been widely shared on social media with a caption saying: “Amritsar train driver committed suicide.” Later, it was clarified by AFP Fact Check team confirming the image is false. After which Facebook removed posts which include the images. [Source: AFP Fact Check]

WhatsApp becomes an increasingly powerful and influential tool for political campaigns, spreading wrong information and causing communal violence. Here are some of the examples of the fake-news epidemic on WhatsApp.

Mobs have lynched at least 25 people across India after reading false rumours spread on WhatsApp in 2018. The people trying to fight fake news in India - BBC News.

In fact, not only civilians, even one of the Indian Chief Ministers, Pinarayi Vijayan ended up sharing information on Facebook and Twitter during the ongoing catastrophe of the Kerala floods in August 2018. It created a huge debate among major political parties and chaos among citizens. The Gulf nation eventually had to come forward to clarify that they had made no such specific announcements.

[Source: BBC News]



While talking on media literacy, the Irish Times Editor Hugh Linehan noted; “Media is no longer passively consumed – it’s created, shared, liked, commented on, attacked and defended in all sorts of different ways by hundreds of millions of people. And, the algorithms used by the most powerful tech companies – Google and Facebook in particular – are brilliantly designed to personalise and tailor these services to each user’s profile.” [Source: Irish Times]

Information is a vital part of our society. We depend on it to guide us through a complex world. If the facts are wrong, the decisions can be wrong; whereas correct information guides our decisions and actions. Thus, misinformation spread from fake news makes one inept and can have real consequences.

The US president Donald Trump’s apocryphal invention, “Fake news” was ‘very real’ word in the year 2017 after being named the word of the year by Collins. According to the Collins Dictionary’s lexicographers, the usage of the phrase had increased by 365% since 2016 and it was the most-used expression in 2017.

The phrase “fake news” has become a cultural phenomenon, used by everyone from politicians to commentators. However, on Tuesday, 23 October 2018 the UK government banned the use of the term “fake news” in official documents, as it “conflates a variety of false information”.

According to The Telegraph, the government has banned the use of the term in all official documents and policy papers after a recommendation from the Digital, Culture, Media and Sports Committee (DCMS). [Source: CBS News]

The role of technology and social media:

As the advances in technology have made the digital content more powerful, the web-based publishing tools have made it easy to build professional news webpage and aggregator sites. With the help of the social media, it's even easier than ever to spread it across to the larger audience.

Social media platforms like Facebook are quite popular for news searches. As per a Pew Research Center survey conducted July 30-Aug. 12, 2018; more than 60 per cent of women surveyed get their news from Facebook, compared to 39 per cent of men. The fact that a sizeable majority of Americans use Facebook and Twitter (but young adults are especially heavy users of Snapchat and Instagram) to stay informed, draws our attention, as well as concern.

Meta Data to rescue?

- Meta Data Analysis of data
- Gives hidden insights which are not visible otherwise
- ML algorithms can make effective use of it for discovery and identification
- Can find insights across multiple data sources

Example: Massachusetts Institute of Technology's Lincoln Laboratory staff developed algorithms that use text, images, and HTML metadata to determine the reliability of a news article. [Source: MIT's Lincoln Laboratory]

Can tech put an end to fake news crisis?

In today's information age, driven by a frenzy of generating content for the Internet, the human fact-checking of such a vast amount of information/content is not realistic. Removing noise from the actual information is another herculean task.

According to Forbes, “In social media streams, only a fraction of data is relevant, e.g., for sentiment analysis, ~20% of all tweets include a link that needs to be opened to understand its context.” Additionally, “in a minute, 98,000 tweets are shared on Twitter, about 600 videos are uploaded on YouTube, and about 1500 blogs posted on several blogging platforms, all over the world,” outlines Forbes.

Emerging technologies like AI, Machine Learning, and Deep Learning can analyse if the data or statistics to back an argument is legitimate or illegitimate. From patterns to spam to malware, all can be identified and eliminated with the help

Deep Learning and Natural Language Processing (NLP) that have the capability to identify patterns in the data.

How Backend Technology can help further:



A block chain-enabled platform can be used to verify any information regarding live news events, viral images and content moderation. Only verified users such as news Agencies, journalists, editor, crowd auditors after a background verification done will be allowed to publish news.

Whenever a post being edited or modified all the changes (transactions) get saved to the blockchain which can help one to identify whether the news is real, edited or reused. As all the activities are saved on Blockchain, it is impossible to edit or alter the data. Due to its transparency, traceability, and decentralised approach feature Blockchain technology can help evaluate the content's credibility better.

When facts are false, decisions are wrong. While tech can help overcome this, we too must share any piece of information responsibly.

IF YOU WISH TO ADVERTISE

Please contact us to advertise in the newsletter. Newsletter is electronically circulated to more than 6000 members among IEEE communities. Increase your visibility with us.

Navin Kumar (navinkumar@ieee.org)
or Anand M (anand.m@ieee.org) and
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All in Three: How to Pitch Your PhD in 180 Seconds

http://blogs.nature.com/naturejobs/2017/04/24/all-in-three-how-to-pitch-your-phd-in-180-seconds/?WT.mc_id=EMX_NJOBS_0427_NATUREJOBSNEWSLETTER_A&WT.ec_id=EXTERNAL

READER'S CHOICE (VOTE & WIN)

Vote for the best article and win surprise prize. Please follow the link to vote:

https://docs.google.com/forms/d/1RRKwAynzq2dzS5P6rC_Src7t6Ab8f9P8xADI5P2NeBs/edit

The winner will be announced in the next issue.

CALL FOR CONTRIBUTION TO COMSOC NEWS

Please get in touch with us if you wish to write and to be included in this newsletter (in the area of Communication Technology). The article should be from 300-1000 words in docx or doc file and separate image jpeg or tiff file format. You can submit to: (trivenicl@ieee.org and navinkumar@ieee.org)

CALL for HOSTING an EVENT

Are you interested in hosting an Event (workshop, guest lecture, special technical, research program) by Us? Get in touch. We will try our best to meet your request.

JOB/RESEARCH

Internship and Job – UG/PG

@ Amrita, ECE Dept. (B Tech ECE, 01); M Tech (CSE or ECE -01) for one year as Research Asst. (navinkumar@ieee.org)

@ ThingTronics, B Tech (>65%), (ECE/CSE -04); MBA -02, contact - rk.arvapally@thingtronics.com.

@ Terminus Circuits, M Tech VLSI (03); (gsjaved@ieee.org)

@WoW Studio, Acct Manager 02 [contact lopa@worldofwowstudeio.com]

PhD Studentship Abroad

@Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil

- Multiple-antenna systems
- Channel coding: LDPC and Polar codes
- Machine-type communications
- Cloud-based techniques for wireless networks
- Internet of things (IOT)

Applicants should send an up to date CV with photo, a one-page personal statement, full contact details (including email addresses) of 2 referees, transcripts and publications to:

Prof. Rodrigo C. de Lamare, PUC-Rio - delamare@cetuc.puc-rio.br

PhD Program Abroad CSE

<https://formationcontinue.um6p.ma/dscs/>

*PhD position in the area of « Blockchain for IoT » is open at the Laboratory of Informatics Image Interaction (L3i ~ <http://l3i.univ-larochelle.fr>) of the University of La Rochelle (ULR - <http://www.univ-larochelle.fr/?lang=en>), located in the magnificent city of La Rochelle by the West (Atlantic) Coast of France. Applicants should e-mail their resume with a list of two references as well as transcripts to Prof. Yacine GHAMRI-DOUDANE (yacine.ghamri@univ-lr.fr), with [PhD Application] in the email subject. Applications will be accepted until this position is filled.

Applications are invited for two 3-year full PhD Studentships to undertake research in the design of millimetre-wave (mm-wave) systems

1. PhD Studentship in Design of Millimetre-Wave Systems based on the software defined mmWave Transceiver System from National Instrument (<http://wmc.eecs.qmul.ac.uk/2018/10/25/phd-studentship-in-design-of-millimetre-wave-systems-based-on-the-software-defined-mmwave-transceiver-system-from-national-instrument/>)

2. PhD Studentship in Design of Phased Array Antennas in Millimetre-Wave Systems (<http://wmc.eecs.qmul.ac.uk/2018/09/07/phd-studentship-in-design-of-phased-array-antennas-in-millimetre-wave-systems/>)

Millimetre-wave technologies are increasingly used for various applications (5G, Radar, Satellite, biomedical applications, etc.).

The objective of the PhD projects is to study the software defined mmWave Transceiver System from National Instrument (<http://www.ni.com/sdr/mmwave/>). The PhD student will contribute to the development and proof-of-concept validation of advanced techniques for millimetre-wave communications, and will closely work with a team whose members are working on the EPSRC funded research project - GBSense (<http://gbsense.eecs.qmul.ac.uk>).

*Post-doc position on security for will be soon available at the Department of Information Engineering, University of Padova, Italy (<http://www.dei.unipd.it>). Applicants should e-mail their resume with a list of two references as well as transcripts to Prof. Yacine GHAMRI-DOUDANE (yacine.ghamri@univ-lr.fr), with [Post-doc Application] in the email subject. Applications will be accepted until this position is filled

STUDENT BRANCH CHAPTER INFORMATION

AMRITA SCHOOL OF ENGINEERING, BANGALORE CAMPUS

ASE ComSoc Student Branch Chapter is formed in April 2016. The student branch has largest number of student members over 120 and perhaps the largest Student ComSoc Members. They conduct lot many activities and are very active.



<https://ieee-amrita.firebaseio.com/>



Demystifying 5G and IoT - Seminar



INDIAN INSTITUTE OF SCIENCE

Faculty Advisor – Prof T Srinivas, ECE Dept

ST JOSEPH ENGINEERING COLLEGE, MANGALORE

ComSoc Chapter was inaugurated in Apr 2018. Faculty advisor – Prof Keith R Fernandes

RVCE STUDENT BRANCH CHAPTER

RVCE ComSoc Student Branch Chapter is formed in the month of July 2016 with faculty advisor as Dr S Ravishankar Professor in the Dept of ECE

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THANK YOU NOTE FOR THE CONTRIBUTORS

We would like to thank every author who showed interest and submitted their works. We could not include all of them mainly because of scope and relevance.

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