**Fellows to the IEEE 802 Plenary**

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| WGs of Interest | IEEE 802.15  IEEE 802.21  IEEE 802.11 | IEEE 802.16  IEEE 802.3 | IEEE 802.11  None |
| Areas of Interest | * Delay Tolerant Networking * Software Defined Networks (SDN) | * Software Defined Networks (SDN) * Next Generation Positioning * NFV Area (Network Functions Visualization) | * High Efficiency Wireless * Next Generation Positioning |
| Why do you wish to attend an IEEE 802 Plenary? What do you intend to accomplish or get out of the experience? | Since 1999, I work with network technologies, starting as a network administrator at the technological school I studied in between 1997 and 2000. Then, I went to the university to study computer science and I really enjoyed amazing moments with my peers working in great projects that involve networking protocols, implementations of network applications and protocols. As I already described in my application for IETF 94 meeting, I had the opportunity to make many contributions, design and implement protocols, but all of them was focused in the application, transport and network layers of the TCP/IP stack. I think that it is time to understand and probably contribute to some IEEE standards, and join my experiences in IETF with the IEEE.  During my PhD, I have proposed the GMTP (Global Media Transmission Protocol) that somehow uses some technics applied to the SDN (Software Defined Networks). In addition, I'm currently interested in standards such as those being developed in the IETF ConEx WG. In this way, I believe that such kind of skills can be complementary for some future works that I can participate in the context of the IEEE 802. | Being a Profession by Engineer, I have always have had to refer IEEE Papers both during the college for research project and later in my career for initial mentoring work. Later on With networking experiences I had to involve more into RFC drafts, review work at IETF.  This Opportunity of assistance to attend an IEEE plenary, will prove very beneficial both for my personal growth and also for the local community I am part of. In turn, I will be able to share my own reviews and feedback from my own experiences, from lesser known part of the world.  I am looking towards knowing the IEEE Process flow and getting a deeper and clearer picture of different work being done at working groups in there.  I am a very active participant at IETF working group line - ISIS, BGP and V6OPS | IEEE 802 plenary sessions provide the opportunity to understand the fundamental standards for wireless LANs,  PANs and MANs that are going to derive the shape of next generation networking technologies. To mitigate privacy risks for nontechnical users living in a world that increasingly offers constant connectivity. These recent mobile privacy trials demonstrate that there are viable means for protecting users against privacy risks,  and also set the stage for further study and collaboration to ensure the technical community prioritizes Internet privacy and security.  This meeting will help to understand the security issues related to IPv6 and Networking issues in mobile cloud computing. It justify ability of end-users and organizations to protect the privacy of their presence and communications from passive observation and fuel IETF and IEEE 802 efforts. Successful trials of MAC address privacy implementations helps address a key problem with the visibility of Layer-2 identifiers on shared local  area networks. |
| How does the work of the IEEE 802 standards community relate to and impact your work or area of study? | I don't have current works in the IEEE 802 standards yet, but I  wish to, mainly in the context of the DTN (Delay Tolerant  Networking). This said, currently, I'm coadvising a student in the context of DTN, where we are discussing/studying some approaches for flight planbased transmission control for aeronautical telecommunication networks. In this way, I think that I can combine my background in computer network and somes new skills to be developed and the get involved in some DTN working groups. | One of the paper being discussed at IEEE is very closely related to my work area, of spectrum sharing for 4G, Wifi, or for that matter, any Wireless technology.  I am part of Design team of a Greenfield Service Provider in India, looking forward to soon launching 4G Services across India. More involvement with this specific track "IEEE802.15.7r1 – Expanding User Experiences", Deeper involvement into the same will help both ways in exchanging ideas and experiences.  In Addition, I am looking forward to get acquaintances with newer tracks like SDN and NFV related work happening at both IEEE and IETF. | According to the numerical analysis, the results shows that the 802.11p standard broadcast on a typical highway scenario can easily satisfy the delay constraints; however, it is difficult to meet the reliability requirements. To increase the reliability of the 802.11p broadcast, it can adjust the system parameters.  Due to these drawbacks i proposed the fake identities of malicious vehicles are analyzed with the help of consistent existing IP address information. Beacon packets are exchanged periodically by all the vehicles to announce their presence and to become aware of the next node. Each node periodically keeps a record of its database by exchanging the information in its environment. If some nodes observe that they have similar IP database by exchanging the information in its environment. If some nodes observe that they have similar IP addresses in the database, these similar IP addresses are identified as DoS attacks. However, it can be expected that security attacks are likely to increase in the coming future due to more and more wireless  applications being developed onto the well-known exposed nature of the wireless medium. In this respect, the network availability is exposed to many types of attacks. A DoS attack on the network availability is being  elaborated in this paper. A model of a product interaction for DoS prevention has been developed called “IPCHOCK”  that wil l lead to the prevention of DoS attacks. |
| How will you apply your experience at the IEEE 802 Plenary to your own professional activities after  the meeting? | Basically, my area of work is related to study and developing network protocols. I particularly have interest on multimedia data distribution over the Internet, as well as study network performance of the existing network protocols. I also like to work on implementing network protocols and test them, specially if they are applicable in the transport and network layers of the TCP/IP stack. This said, the work of the IEEE are specially related to the are of my study/work because in addition to have previous contributions to the community in the levels that I already explained, I also would like to teach all the lessons I will continue to learn during the Computer Network subject, since I'm responsible to teach at my job as a professor of computer science at the Federal University of Alagoas. | I will be able to apply the learning sand ideas sharing directly into our Network design, which we are building to launch 4G services Across India soon enough. It will surely help in enhancing customer experiences and hence connected billions across India. | We are planning to work on Intelligent city projects (i-cities) announced by (MOR) Malaysian Government  (http://www.utp.edu.my/index.php?option=com\_content&view=article&id=1000&Itemid=2093). Mission:   * + To enhance the quality of life in cities of the future.   + To identify and develop core research agenda and capabilities in the fundamental and advanced domains related to intelligent cities.   Cities residents in the world over want – and deserve – a good quality of life. They need good air to breathe, good water to drink and reliable electricity to power their lives. People need healthcare. They also need to be mobile – so transportation systems must be capable of transporting millions of people while putting as little strain as possible on the environment and city budgets. In other words, a good quality of life requires a wellfunctioning infrastructure.  Moreover, an effective infrastructure in turn contributes to economic prosperity, further improving quality of life. Unfortunately, the infrastructure in many cities lags behind the population’s needs – a major challenge for city governments in both emerging and industrialized nations. The research carried out by members of the  MOR (Intelligent Cities) addresses these issues and challenges with solutions that will be able to improve the local economy, environment .  We have proposed few projects under the smart city like city traffic management, load balancing of water and  electricity supply using smart meters, IoT based car parking solution, effectiveness of Wi-Fi facility in the city etc. Because, network is the backbone for all the above projects, therefore, experience of IEEE 802 plenary will help to efficiently design the above projects considering the networking issues. |
| Describe your plan to share the experience and the knowledge you gain at the IEEE 802 Plenary with  your local or regional technical community. Please include succinct plans that you will conduct in the  Post-Meeting Project if you are selected as a Fellow. | I have a plan organized in three strategies:  1) Include IETF/IEEE presentation in my classes at the university. Nowadays, when I teach Computer  Science, I have a specific class that I speak about IETF as an organization and how the basic things works, such as what is a DRAFT, RFC, etc. But I would like to have the experience of a IEEE meeting for improve my talk about the IETF/IEEE goals and the process from starting a project (with a basic idea) and the have it as a RFC, discussing the process of writing an Draft and participate of meetings. When I teach about local networks, it will be great to share my experiences in projects related to IEEE standards that probably I will get involved.  2) I would like to introduce the IETF in the laboratory where I coordinate researches related to computer networks protocols. In this context, I have a plan to understand more the IRTF and its WG, as well as explain to them how it works and goals | I can share the experience I will gain with my local community, by various regional meeting and our own circle-level meet ups.  I am an active member of NOG (Network Operator group), of South Asia, SANOG and have received fellowship in the past to attend the same. I will be able to share the experiences with audience in that forum too.  In addition I will be able to acquaint people back at my alma mate NIT Warangal, for more involvement into research areas being done at IEEE and will generate more participation from lesser known this part of the globe. | The aim of enhancing the efficiency and performance of wireless local area network (WLAN) deployments. The  new IEEE 802.11 high efficiency WLAN (hew) study group will consider use cases, including dense network environments with large numbers of access points and stations. more than 300 individuals from equipment and silicon suppliers, service providers, carriers, systems integrators, consultant organizations and academic institutions from more than 20 countries have expressed interest in participating in the work to define the scope for a future hew project. The IEEE 802.11 hew study group meets during IEEE 802.11 wireless LAN working group meetings, the schedule for which can be found here. For more information about the IEEE 802.11 hew study group, visit this page. IEEE 802.11 defines the technology for the world's premier WLAN products. IEEE 802.11 -based products are often branded as "wi-fi" in the market. IEEE 802.11 standards underpin wireless networking applications around the world, such as wireless access to the internet from offices, homes, airports, hotels, restaurants, trains and aircraft IEEE 802.11's relevance continues to expand with the emergence of new applications, such as the smart grid, wireless docking and the "internet of things."  for more information about the IEEE 802.11 working group, visit this page. Deployment of technology defined by IEEE 802 standards is already globally pervasive, driven by the ever-growing needs of networks around the  world. |
| Are you involved in any Internet related  or standards development  organizations or activities apart from  ISOC or IEEE? (ICANN, W3C, NRO,  local/regional Internet governance  dialogues, etc.)? | In the past, I participated on the  dccp@ietf.org maillist, providing some contributions:  https://www.ietf.org/mailarchive/  web/dccp/current/msg02826.html  https://www.ietf.org/mailarchive/  web/dccp/current/msg01561.html  http://icir.org/floyd/talks/ccid4mar08.ppt (slide 4)  http://www.archivum.info/dccp@ietf.org/200508/00034/Re(dccp)DCCPimplementations.Html  http://www.linuxfoundation.org/collaborate/workgroups/networking/dccp (helped on creating this page, as well as some examples in C, python and PHP)  https://www.ietf.org/mailarchive/  web/dccp/current/msg01804.html  http://www.linuxmagazine.  com/Issues/2008/93/DCCP  <http://www.lbd.dcc.ufmg.br/bdbcomp/servlet/Trabalho?id=20723>  <http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=4446556&url=http%3A%2F%2Fieeexplore.ieee.org%2Fiel5%2F4446297%2F4446298%2F04446556.pdf%3Farnumber%3D4446556>  <http://ietf.10.n7.nabble.com/APIforDCCPtd285755.html>  Implementation of DCCP application layer in some well known multimedia libraries, such as GStreamer Framework, GNU Common CPP, GNU uCommon  and GNU CCRTP. In order to confirm this: https://www.ietf.org/mailarchive/  web/dccp/current/msg03497.html.  In addition,  https://www.kernel.org/doc/ols/2009/ols2009pages239250.  pdf and https://www.kernel.org/doc/  ols/2009/#239250.  Currently, I'm contributing in the following initiatives:   * W3C - Contributions to the API Gap [1,2] * IETF – Activities in some working groups related via mailing list and local events, such as the first two * Workshop PreIETF in Brazil and coordination of the next two Workshops scheduled for 2016 and 2017. * IETF-LAC group   [1] https://www.w3.org/wiki/Mobile/Work  [2] https://docs.google.com/presentation/d/1S3Sgb4\_dBf22PEzPswQMG3QrEK0IHK1EnbAMu  Vq0zO4/edit#slide=id.gb91a20790\_1\_5 | I am an Active ISOC member and have received multiple fellowships in the past. I have attended IETF 92 at  Dallas beginning this year and am also attending IGF10 at Brazil later this year as ISOC Ambassador. I am active member of SANOG (South Asian Network Operator Group) and also Closely follow the ICANN work being done.  <http://www.internetsociety.org/publications/ietf-journal-july-2015/isoc-fellow-shares-experiences>  At IETF 92 I presented the IPv6 deployment status and operational challenges being faced in this part of the world, I was able to acquaint myself with people who have implemented IPv6 into their network with ease and I am now implementing those learning into our own design and implementation. This knowledge sharing has proved very beneficial from both ends.  http://chrisgrundemann.com/index.php/2015/operators-and-the-ietf-update-from-ietf-92/  At IETF, I am part of ISIS, v6ops and bgp working groups and participate in reviewing the drafts being proposed in the making of an RFC. | I'm working with IEEE. |