



IEEE *The Open Channel*

Newsletter for the Hampton Roads Section of the IEEE
The Institute of Electrical and Electronics Engineers, Inc.

<http://www.ieee.org/hrs>

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October 2005

Topic: New Avenues for Data Network Security

Speaker: Aftab Ahmad, PhD

Associate Professor

Computer Science Department

Norfolk State University

Date/Time: Thursday, October 20, 2005 at 6:30 PM

Location: Topeka's Steakhouse 'N Saloon

55 Town Center Way 757.896.9696

Hampton, VA 23666

Cost: Members and guests \$20; Students \$10

Advances in security architectures for data networks have traditionally been following the trail of security breaches, consequently having a lot of solutions with no coherent foundation. Integration of user data layers with security protocols has been hindered by a myriad of factors even with the realization that security must be an integral part of a network architecture. Lack of sufficient research on the subject, international trade laws, and the lack of awareness to the amount of security required by a typical user are a few to mention. The current trend is to have security at every layer of network architecture as well as in the operating system without a rigorous framework. In this presentation we discuss how a layered security architecture can be developed for future data networks and suggest some of the components of such a network. We discuss the idea of a 'Common data security network (CDSN)'. CDSN provides and implements security on the paradigm of Common channel signaling system (such as SS#7) of the PSTN. Inter-layer communications will allow layers to share security information. Some analytical results on the security architecture for Wi-Fi networks (based on the new standard IEEE 802.11i) will be presented in order to relate resource consumption by security protocols to their effectiveness.

Biographical Sketch: Dr. Aftab Ahmad earned his Doctor of Science in Communications Engineering from George Washington University (GWU) in 1992. Since then, he has worked in industry and academia. Currently, he is Associate Professor in Computer Science Department in Norfolk State University. He has authored two books: "Data Communications Principles: For Fixed and Wireless Networks" and "Wireless and Mobile Data Networks". This is in addition to authoring and co-authoring a number of referenced papers in international journals and conferences. His publications are mainly in the areas of high-speed network design, resource allocation in cellular networks and QoS control in wireless networks. His current research interests include resource management and medium access control in wireless data networks, ad hoc network routing and performance modeling of communications systems.

Reservations: Please forward RSVP to Brent Phillips [bphillips@ieee.org] or William LaBelle [+1 757 619 9050, +1 757 421 8695, w.labelle@ieee.org].

Checks: Checks should be made out to IEEE and brought to the meeting.

Upcoming Meetings

Oct 20 Aftab Ahmad, PhD – Topeka Steakhouse
Nov 17 Magnatomer Design – Lake Wright

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All materials for THE OPEN CHANNEL are due by the 22th day of the month preceding the issue month. Address all correspondence to:

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From the Chair

Gold, Silver and some Jewels

The real treasures of the IEEE are the members. To capitalize on these treasures the IEEE has created an opportunity to establish affinity groups at the local level. An affinity group is a pure networking organization to allow interested members to explore business and social opportunities. There are four types of affinity groups. The four are:

- * Graduates Of the Last Decade (GOLD),
- * Women In Engineering (WIE),
- * Consultants Network (cool acronym not currently available), and
- * Life Member (LM).

You only need six members to form an affinity group as compared to twelve for a technical society chapter. Like a chapter, it receives a \$200 budget (through the Section) and a bonus for activity. You can learn more about the IEEE affinity group program and information on each of these groups at http://www.ieee.org/organizations/rab/scs/Affinity_Groups/. So, what about those treasures?

GOLD membership is automatic for those who have graduated within the last 10 years. It is designed to attract young professionals who have been traditionally under represented in the Institute. We have about 75 GOLD members. A GOLD affinity group would allow these members to focus on issues and activities that relate to their generation and needs. I am pleased to note that a number of our active members fall in this category, but there is always room for more service to the member.

Life membership is on the other end of the spectrum, our silver (haired) generation. IEEE "Life" status is an automatic process which is based on an individual's membership. The member must be at least 65 years of age and has been a member of IEEE or one of its predecessor societies for such a period that the sum of his/her age and his/her years of membership equals or exceeds 100 years. We have approximately 150 Life members, yet only a handful participate in our activities. Some sections have LM groups that are as active as their related sections. I suspect we are competing with great fishing and today's active lives over 65. So is our LM community interesting in doing more?

WIE is one of our jewels. Unlike the other two categories, members must actively seek WIE membership. We have six members who have spent the \$25 for WIE. If they wanted, they could decide to form a local affinity group. Sound interesting?

The other jewel is the Consultants Network. There is no magic block in our database that identifies consultants. You all will have to develop your potential network members the old fashion way. So if you are a consultant and want to develop a local network, speak up.

Hopefully if one of these affinity groups fits your lifestyle, I have tweaked your interest. Check out the links or contact Section Chapter Support at (732) 562-5518 if you need more information. If you decide to start something, let us know.

Sincerely,
Bill Clayton
Chair
Hampton Roads Section
w.clayton@ieee.org

Topeka's Steakhouse 'N Saloon:

Directions from Norfolk:

1. Take the HAMPTON RDS CENTER PKWY WEST exit-exit number 261A. (0.3 miles)
2. Merge onto HAMPTON ROADS CENTER PKWY. (0.5 miles)
3. Turn RIGHT onto VA-600 N/BIG BETHEL RD. (0.1 miles)
4. Turn RIGHT onto TOWNE CENTRE WAY. (<0.1 miles)
5. End at 55 TOWN CENTER WAY HAMPTON VA

Directions from Williamsburg:

1. Take the HAMPTON RDS CENTER PKWY WEST exit-exit number 261A. (0.2 miles)
2. Merge onto HAMPTON ROADS CENTER PKWY. (0.2 miles)
3. Turn RIGHT onto VA-600 N/BIG BETHEL RD. (0.1 miles)
4. Turn RIGHT onto TOWNE CENTER WAY. (< 0.1 miles)
5. End at 55 TOWN CENTER WAY HAMPTON VA



Mentors wanted at Norfolk State University

I am Scott Toupin, the IEEE student chapter Public Relations director for Norfolk State University. I am looking for anyone interested in mentoring at the school.

Thank You,
Scott Toupin
PR Director
IEEE Norfolk State University
757-435-0455
s.e.toupin@nsu.edu

Renewal Notices to Be Sent in October



On 1 October 2005, IEEE will begin to mail the 2006 membership renewal notices to all members in Regions 7-10. The remaining notices will be mailed to members in Regions 1-6 on the following day. All members are again being urged to renew online, as this method provides more timely service and greater accuracy in member records. It also helps IEEE to hold down its costs. Please note that, as was the case last year,

Student members are **required** to renew online!



In addition, Student Members this year will receive their renewal notice via an e-mail message with an attached "pdf" file. They will not receive a paper renewal notification via the mail.

For those who wish to renew early, the 2006 online renewal form is already open for business. The online renewal process is fast, easy to use, and immediate. We encourage everyone to please renew early at: <http://www.ieee.org/renew>. Those who renew online prior to 15 November 2005 will be eligible to participate in a drawing for a chance to win a Dell laptop computer.

Members can register for a Web Account at: <http://www.ieee.org/web/accounts>.

Notification of email service upgrade

As of September 29th, 2005 the IEEE operations center in New Jersey will begin managing and maintaining all computer.org alias services. As a result, computer.org alias user will have access to new tools designed to help minimize Unsolicited Commercial Email (UCE), otherwise known as spam. No disruptions to normal email delivery are anticipated or expected during to the upgrade process. However, web based alias management tools will be off-line from September 26th through September 29th. The Computer Society staff appreciates your patience and understanding during this period.

Regards,
IEEE Computer Society Member Services Department

Become a Senior Member

Senior Member drive

Of the 450 of the sections active membership hold a grade of 'Member' almost 400 may be eligible for upgrade. Information on requirements for elevation from 'Member' to 'Senior Member' can be found at <http://www.ieee.org/organizations/rab/md/smprogram.html>.

Vote in the IEEE Election

Annually, the IEEE members are requested to participate in the IEEE elections. This is your opportunity to provide input to determine who will serve on the IEEE Board of Directors, Regional Activities Board, Technical Activities Board, IEEE-USA Board and the Standards Association Board. The ballots have been mailed and must be returned PRIOR to 1 November 2005. Members may cast their ballots either electronically or by mail. Instructions and codes for electronic transmission are provided in the election ballot materials.

Visit the IEEE election website (<http://www.ieee.org/corporate/elections/candidates.xml>) for the most accurate and up-to-date information on all candidates and election categories.

Please return your ballots or vote online by the requested due date.

Hampton Roads Section

Locally, the Hampton Roads Section will be holding its annual election of officers in November. As with all sections and chapters in IEEE the elected positions are: Chair, Vice Chair, Treasurer, and Secretary. Send in your nominations now to William LaBelle [w.labelle@ieee.org]

IEEE Conferences

* *2005 IEEE International Conference on Intelligent Systems Application to Power Systems (ISAP)* will be held at the Doubletree Crystal Hotel, Arlington, VA from November 6 thru November 10, 2005. For more information visit the ISAP 2005 website at <http://www.cesac.howard.edu/isap2005.html> or contact:

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* *2005 IEEE 36th Interface Specialists Conference (SISC)* will be held at the Key Bridge Marriott, Arlington, VA from December 1 thru December 3, 2005. For more information visit the SISC 2005 website at <http://www.ieeesisc.com/> or contact:

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Local events and announcements

Announcements from other local engineering societies (monthly meetings, EXCOMs, conferences, ...) on the Peninsula Engineers Council website <http://va-pec.org/>. Select the PDF file link labeled HRE Events Calendar. Be careful, the file size can range from 100 KB to over 1 MB.