



Cascade



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Editorial

Secure Sockets Layer

The Secure Sockets Layer (SSL) is a computer networking protocol that manages server authentication, client authentication and encrypted communication between servers and clients. SSL uses a combination of public-key and symmetric-key encryption to secure a connection between two machines, typically a Web or mail server and a client machine, communicating over the Internet or an internal network.

Using the OSI reference model as context, SSL runs above the TCP/IP protocol, which is responsible for the transport and routing of data over a network, and below higher-level protocols such as HTTP and IMAP, encrypting the data of network connections in the application layer of the Internet Protocol suite. The "sockets" part of the term refers to the sockets method of passing data back and forth between a client and a server program in a network, or between program layers in the same computer.

The SSL protocol includes two sub-protocols: the record protocol and the "handshake" protocol. These protocols allow a client to authenticate a server and establish an encrypted SSL connection. In what's referred to as the "initial handshake process," a server that supports SSL presents its digital certificate to the client to authenticate the server's identity. Server certificates follow the X.509 certificate format that is defined by the Public-Key Cryptography Standards (PKCS). The authentication process uses public-key encryption to validate the digital certificate and confirm that a server is in fact the server it claims to be.

Once the server has been authenticated, the client and server establish cipher settings and a shared key to encrypt the information they exchange during the remainder of the session. This provides data confidentiality and integrity. This whole process is invisible to the user. For example, if a webpage requires an SSL connection, the URL will change from HTTP to HTTPS and a padlock icon appears in the browser once the server has been authenticated.

The handshake also allows the client to authenticate itself to the server. In this case, after server authentication is successfully completed, the client must present its certificate to the server to authenticate the client's identity before the encrypted SSL session can be established.

Events conducted at IE Building, Bharath Heavy Electricals Ltd.(BHEL)

A lecture programme on 'Evaluation of Animation' was conducted on 6th January 2015. The resource person was Mr. Krishnan Srinivasan, Media Technician (Software Analyst), Srirangam, Tiruchirappalli . He discussed about sketching and 2D animation, stop motion animation and the evolution of sound in his lecture. He also introduced about the various software used for 2D animation, 3D animation, and compositing including the modern techniques in the current era of animation. He also highlighted on the differences between Special Effects and Visual Effects.

A special lecture was delivered by Mr. A. Anand, Sr. Engineer, Informatics Centre, BHEL, Tiruchirappalli on the topic 'SSL Introduction and Implementation' on 10th February 2015. He spoke on the basics of SSL and its use of establishing an encrypted link between a web server and a browser. He also explained about a few encryption algorithms.

Mr. T.V. Sundaram, Manager ERP, Informatics Centre, BHEL, Tiruchirappalli gave a talk on 'Budget 2015 – An Analysis' on 10th March 2015. He highlighted on the salient feature of the GST model proposed by the Empowered Committee and accepted by the Centre will have dual system for imposing the tax. He also touched upon the subsume of taxes and the advantages of GST.

What is a SSL Certificate?

SSL Certificates are small data files that digitally bind a cryptographic key to an organization's details. When installed on a web server, it activates the padlock and the https protocol (over port 443) and allows secure connections from a web server to a browser. Typically, SSL is used to secure credit card transactions, data transfer and logins, and more recently is becoming the norm when securing browsing of social media sites. SSL Certificates bind together:

- A domain name, server name or hostname
- An organizational identity (i.e. company name) and location

An organization needs to install the SSL Certificate onto its web server to initiate secure sessions with browsers. Depending on the type of SSL Certificate applied for, the organization will need to go through differing levels of vetting. Once installed, it is possible to connect to the website over <https://www.domain.com>, as this tells the server to establish a secure connection with the browser. Once a secure connection is established, all web traffic between the web server and the web browser will be secure.

Securing Communications with SSL

By default, all communication between the Web server and the client occurs over a clear-text connection, which has the potential to expose the information included in the requests and responses to an attacker able to listen to the communication at the network layer. This includes packet sniffing at a local network, or compromising a router or a proxy server that is located on the path between the client and the Web server. This can result in the unintended disclosure of the response information, which may contain sensitive information, client credentials that are sent as part of some authentication methods (such as basic authentication or forms-based authentication methods), cookies, and more. The attacker can sometimes successfully use this information to misrepresent the client by providing these credentials to the Web server in a replay attack.

To prevent this from happening, you can use the Secure Socket Layer or the newer Transport Layer Security (TLS) protocols to secure the communication between the client and server. TLS is a widely accepted standard that most browser technologies implement.

In addition to securing the communication between the client and the Web server, SSL serves to confirm the identity of the Web server to the client. This process is widely used on the Internet today to ensure that the client is dealing with the entity that the Web site claims to represent.

Events conducted at Bharathidasan University Technology Park (BUTP)

26-02-2015 : Mrs. Uma Maheshwari, Princeton Review – India speaks on Overseas Curriculum and Academic Awareness



28-02-2015 : Mrs. Pallavi Nile, Coordinator, IIT Bombay conducts Spoken Tutorial Training on Open Source Software



02-03-2015 : Mr. Senthil Kumar, Director –IT, Dell Technologies Bangalore talks about Software Ethics



04-03-2015 : Mr. Narasimman. SASTRA University, Thanjavur speaks about Matlab.



05-03-2015 : S. Kalavani, Project Coordinator, BUTP, Tiruchirappalli speaks on Open Source Technologies



06-03-2015 : C. Mathumathi, Research Scholar, BDU, Tiruchirappalli talks about Cloud Computing



**WAKE UP WITH DETERMINATION.
GO TO BED WITH SATISFACTION.**

**EVERY JOURNEY BEGINS WITH A SINGLE STEP.
BUT YOU'LL NEVER FINISH IF YOU DON'T START.**

Events conducted at Bharathidasan University Technology Park (BUTP)

07-03-2015 : Mr. S. Sundar, Professor, IIT-Madras, Chennai delivers a lecture on Big Data



09-03-2015 : Mr. Devan, Deputy Controller of IP, Chennai speaks on Patenting Procedure with specific emphasis on IT related Inventions



10-03-2015 : Dr. Vijaya, Head, Dept. of Computer Science GRSACT, Coimbatore talks about R Programming



11-03-2015 : Dr.P.Shanmuga Vadivu, Head, Dept. of Comp. Science Gandhigram Rural University, Gandhigram, Dindigul speaks on Fractals in Image Processing



12-03-2015: Dr.Muthukumar, Former Vice Chancellor Bharathidasan University discusses about Higher Education Developments



13-03-2015 : Mr. Murali, Head, Dept. of Comp. Science PSG College of Arts & Science, Coimbatore speaks on Turing Machine



Just for Thought

The most beautiful things in the world cannot be seen or even touched; they must be felt with the heart.

Events conducted at Bharathidasan University Technology Park (BUTP)

14-03-2015 : A talk on AI Concepts by Dr. G. Ravi, Head, Dept. of Computer Science, Jamal Mohamed College, Tiruchirappalli



16-03-2015 : Dr. Chandrasekaran, Head, Dept. of Computer Science MEPCO College, Sivakasi giving a lecture on Linguistic Computing



18-03-2015 : Mr. Syed Ahmed, CEO, VDART Technologies Pvt, Ltd. Tiruchirappalli delivers a lecture on Entrepreneurship Skills Development in IT



19-03-2015: A Computer Science and IT Book Exhibition was organized for the benefit of the students and faculty members



20-03-2015: An Examination on Computer Basics was conducted in association with BHUMI organization, Tiruchirappalli for the students of orphanages



21-03-2015: An Eye Camp was organized by Vasan Eye Care, Tiruchirappalli



Just for Thought

When what you want to do is one thing and what you end up doing is another thing, you create an inner conflict. Any form of inner conflict will result in an agitated mind. An agitated mind can only cause confusion and never clarity.

Events conducted at Bharathidasan University Technology Park (BUTP)

A **National Seminar on Big Data Analytics** was organized in association with the Bharathidasan University Technology Park, Khajamalai, Tiruchirappalli on 25th February 2015. Dr. M. Ravichandran, Registrar, Bharathidasan University inaugurated the seminar. Shri. G.S. Raghunathan, Chairman, CSI-Tiruchirappalli Chapter and AGM, Informatics Centre, BHEL, Tiruchirappalli presided over the function. Dr. Gopinath Ganapathy, Director, Bharathidasan University Technology Park delivered the keynote address. Dr. C. Muthu, Associate Professor of Statistics, St. Joseph's College, Tiruchirappalli and Mr. M. Johnson, CEO, Shalom Infotech, Tiruchirappalli conducted the Seminar. The seminar included lectures and demo sessions. Around 75 participants including PG students and faculty members attended the seminar and derived benefits.



Events conducted at Jamal Mohamed College (JMC)

Special Lecture Programs

S.No.	Date	Topic	Resource Person
1	09.02.2015	Pervasive Computing	Mr. H. Karamath Ali, Asst . Professor of Computer Science, Periyar E.V.R College, Tiruchirappalli
2	10.02.2015	Animation Techniques	Mr. R. Rajesh, Senior Technical Trainer & Developer, ARENA Animation, Tiruchirappalli
3	11.02.2015	Network on chip	Ms. S. Shakila, Assistant Professor of Computer Science, Government Arts College, Tiruchirappalli
4	12.02.2015	Internet of Things	Mr. K. Muthuramalingam, Assistant Professor, Bharathidasan University, Tiruchirappalli
5	16.02.2015	Cloud Infrastructure	Dr. M. Nazreen banu, Assistant Professor, Dept. of Computer Science & Engg., MAM College of Engineering Tiruchirappalli
6	17.02.2015	Cryptography	Dr. K. Mani, Associate Professor of Computer Science, Nehru Memorial College Puthanampatti
7	18.02.2015	Cloud Computing	Mr. S. Manigandan, Director-MCA, Christhu Raj College, Tiruchirappalli
8	19.02.2015	Windows Applications	Ms. J. Saigeetha, Asst, Professor of Computer Science, Nehru Memorial College Puthanampatti
9	19.02.2015	Mobile Communication	Dr. V. Sinthu Janita Prakash, Head, Department of Computer Science, Cauvery College for Women, Tiruchirappalli
10	20.02.2015	High Performance Computing	Dr. T.N. Ravi, Assistant Professor of Computer Science, Periyar E.V.R College Tiruchirappalli
11	13-03-2015	Programming Techniques	Prof. S.T. Rajan, Head, Department of Computer Science, St. Joseph's College Tiruchirappalli

Our data analytics initiative began last month in an effort to reveal customer behavior and buying preferences.

We mined mountains of data and so far we've eliminated certain specific target markets

Those being?

The homeless, prisoners, infants, mental patients, and eskimos

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Events conducted at Jamal Mohamed College (JMC)

VARIT 2K15: Inter-collegiate Under Graduate Technical Symposium

Jamal Mohamed College, in association with the CSI Tiruchirappalli Chapter, organized an Inter-Collegiate Technical Symposium, VARIT-2K15, on 10th January 2015 for the under graduate students of arts, science and engineering colleges of Bharathidasan University, Tiruchirappalli. Dr. T. Abdul Razak, Coordinator, Department of Information Technology welcomed the gathering and introduced the chief guest. Dr. M.A. Maluk Mohamed, Principal, MAM College of Engineering, Tiruchirappalli inaugurated the proceedings. Dr. S. Mohamed Salique, Principal, presided over the function. Mr. M.J. Jamal Mohamed, Assistant Secretary of the college, felicitated. To commemorate the occasion, a souvenir was released by the chief guest. The first copy of the souvenir was received by the Secretary & Correspondent of the college, Dr. A.K. Khaja Nazeemudeen. Mr. O.S. Abdul Qadir, Vice President, Computer Science Association, proposed a vote of thanks.

Around 300 students from 30 Arts, Science & Engineering Colleges participated in the symposium in which events like Bugster, Cyber Spidy, Job Siezer, Mind Crusher, Xpress Ur Gadget, and Freeze D Moment were conducted.

The valedictory function was held at 6.00 p.m. Mr. K. N. Abdul Kader Nihal, Head of the Department & Director of Self Finance programmes welcomed the gathering. Dr. S. Mohamed Salique, Principal presided over the function. The Secretary & Correspondent, Dr. A.K. Khaja Nazeemudeen delivered the valedictory address and distributed the prizes and certificates to the winners. The Chairman, VARIT 2K15, presented the report of the proceeding of the day. Finally Mr. M. Mohamed Fayaz, Secretary of VarIT2K15 thanked. The students of Cauvery College for Women, Tiruchirappalli won the overall championship and the students of PRIST Universtiy, Thanjavur won the second place.



A one-day workshop on Android Apps Development and prelims of Appdhoom-2 event was conducted by Target Soft Systems, Chennai in association with the Computer Society of India on 22nd January 2015. Around 110 students participated in the workshop. At the end of the workshop the participants were able to develop their own small apps.

Workshop on Research Methodology in Computer Science

A Two-Day Workshop on Research Methodology in Computer Science was organized for the benefit of M.Phil. scholars and PG students on 27th & 28th January 2015. Dr. L. Arokiam, Associate Professor of Computer Science, St. Joseph's College, Tiruchirappalli inaugurated the workshop and spoke on the various techniques of Research Methodology that can be applied for doing research in computer science. Lectures and demo sessions were conducted on the current topics including data mining, cloud computing and image processing. At the end of the second day, Mr. K.N. Abdul Kader Nihal, Director & Registrar of Attendance, SF Programmes, delivered the valedictory address & distributed the certificates to the participants. The success of the workshop was evident from the feedback of the participants.

Just for Thought

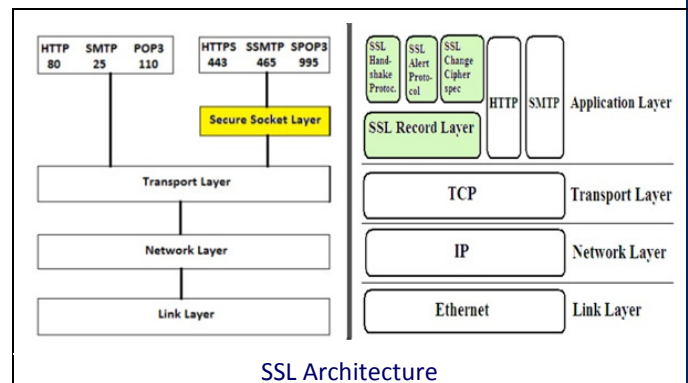
Every feedback from life – hurt, pain, failure or for that matter even pleasure and success is just a message from life – just experience it as an incident that happens in life, that helps you to improve yourself in all the ways.

Events conducted at Jamal Mohamed College (JMC)

A State Level Seminar on Computing and Communication Technologies (SCCT-2015) was organized on 25th February 2015. Dr. S. Mohamed Salique, Principal presided over the function. Dr. F. Sagayaraj Francis, Professor, Department of Computer Science & Engineering, Pondicherry Engineering College, Pondicherry, inaugurated the seminar. Janab. Dr. A.K. Khaja Nazeemudeen Sahib, Secretary & Correspondent, released the seminar proceedings. Hajee. K.A. Khaleel Ahamed Sahib, Treasurer, received the first copy.

Dr. F. Sagayaraj Francis, Professor, Department of Computer Science & Engineering, Pondicherry Engineering College, Pondicherry, Dr. C. Balakrishnan, Assistant Professor in B.Voc, Software Development, Alagappa University, Karaikudi, and Dr. A. Shaik Abdul Khadir, Associate Professor in Computer Science, Khader Mohideen College, Adirampattinam will deliver invited talks on Big Data Analytics, No SQL and Image Mining respectively.

As many as 150 faculty members, research scholars and students from various universities and colleges across the state participated and 31 scholars presented papers. The paper presentation sessions were chaired by Dr. D.I. George Amalarethinam, Associate Professor, Dr. M. Mohamed Surputheen, Associate Professor and Dr. K. Gokul Raj, Assistant Professor of our college.



MindSparkz'15: Intra-Collegiate Symposium

An intra-collegiate symposium, MindSparkz'15 was organized for the students of all the departments in the college on 25th & 26th February 2015. Events like Quiz, Extempore, Marketing, Word hunt and Connections were conducted. UG and PG students from almost all the departments participated. Top three students from each event were selected. Prizes and certificates were given to the winners by the Secretary & Correspondent of the college, Dr. A.K. Nazeemudeen during the valedictory function of the computer science association on 13th March 2015.



Compu-Quiz

An technical quiz programme was conducted on 12th March 2015 for the UG students of the Departments of Computer Science, Computer Application and Information Technology. The contest was conducted for the first, second and third year students separately. Around 100 teams participated in the programme. Online Prelims were conducted and out of the participating teams, 5 teams were selected in each category. Finals were conducted for each category separately on stage. Top two teams in each category, were selected and awarded with prizes and certificates during the valedictory function of the computer science association on 13th March 2015.

Events conducted at Jamal Mohamed College (JMC)

National Conference on Advanced Computing

A National Conference on Advanced Computing (NCAC 2015) was organized on 5th March 2015. Dr. M. Mohamed Sathik, Principal, Sadakathullah Appa College, Tirunelveli inaugurated the conference. Dr. S. Mohamed Salique, Principal, delivered the presidential address. Dr. G. Ravi, Head & Convenor, delivered the welcome address. The e-proceedings of the NCAC-2015 was released by the Secretary & Correspondent. The first copy was received by the Assistant Secretary of the college. Dr. D.I. George Director – MCA proposed a vote of thanks

The first Technical talk was given by Dr. M. Mohamed Sathik on 'Applications of Virtual Reality in Medical Imaging'. The second technical talk was given by Dr. D. Muhammad Noorul Mubarak, Assistant Professor, Department of Computer Science, University of Kerala, Thiruvananthapuram on 'Recent Trends in Cloud Computing'. The third technical talk was delivered by Dr. A. Kaja Mohideen, Assistant Professor, Department of Applied Mathematics & Computational Science, PSG College of Technology, Coimbatore on 'Optimization Techniques'.

Around 65 participants attended the conference and out of which 30 participants presented their papers in three parallel paper presentation sessions. Paper presentation sessions were chaired by Dr. V. Sinthu Janita, Head, Department of Computer Applications, Cauvery College for Women, Tiruchirappalli, Dr. D. Muhammad Noorul Mubarak and Dr. A. Kaja Mohideen.

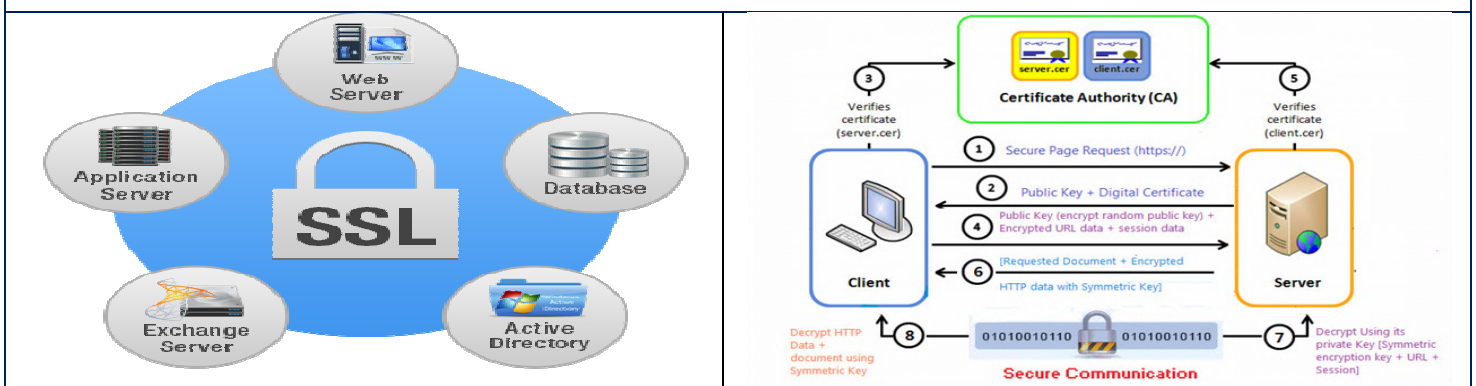
The valedictory function commenced at 6.00 p.m. The Secretary & Correspondent of the College delivered the valedictory address.

Events conducted at Srimathi Indira Gandhi College (SIGC)

National Level Workshop on Recent Trends in Human Computer Interaction

A One-day National Level Workshop on 'Recent Trends in Human Computer Interaction' was organized on 28th February 2015, in association with the CSI student chapters of MAM College of Engineering, Jamal Mohamed College, Srimathi Indira Gandhi College and Saranathan College of Engineering, Tiruchirappalli. The main aim of the workshop was to give training on spoken dialogue systems and gesture recognition systems in order to make the learners to start doing research in new directions. Dr. S. Ganesan, Registrar, Anna University, Chennai inaugurated the workshop and released the book authored by Dr. K. Meena, Past Chairperson, Computer Society of India and Former Vice Chancellor, Bharathdasan University, Tiruchirappalli and Dr. R. Sivakumar, Head, Department of Computer Science, AVVM Sri Puspam College, Poondi, Thanjavur. Dr. K. Meena presided over the inaugural function. Dr. A.K. Khaja Nazeemudeen, Secretary & Correspondent, Jamal Mohamed College, Dr. S. Subbiah, Head, Department of English and Foreign Languages, Alagappa University, Karaikudi and Sri. N. Sekar, Member Division III, CSI Tiruchirappalli Chapter offered felicitations.

The workshop consisted of three sessions. The first session on 'Cognitive Architecture' was conducted by Dr. R. Sivakumar, Head, Department of Computer Science, AVVM Sri Puspam College, Poondi, Thanjavur. The second session on 'Spoken Dialogue Systems' was conducted by Dr. G. Kumaravelan, Associate Professor of Computer Science, Pondicherry University Extensions Centre, Karaikal. The third session on 'Ambient Intelligence' was delivered by Dr. A.B. Karthik Anand Babu, Research Scholar, AVVM Sri Puspam College, Poondi, Thanjavur.



Events conducted at Saranathan College of Engineering (SCE)

A one-day workshop on Android Apps Development and prelims of Appdhoom-2 event was conducted by Target Soft Systems, Chennai in association with the Computer Society of India on 10th January 2015. Around 134 students of CSE participated in the workshop. At the end of the workshop the participants were able to develop their own small apps. The students were given introductory idea on developing Android mobile application development. A written test competition was conducted at the end of the day. 10 students were shortlisted to participate in the final round with a project work.



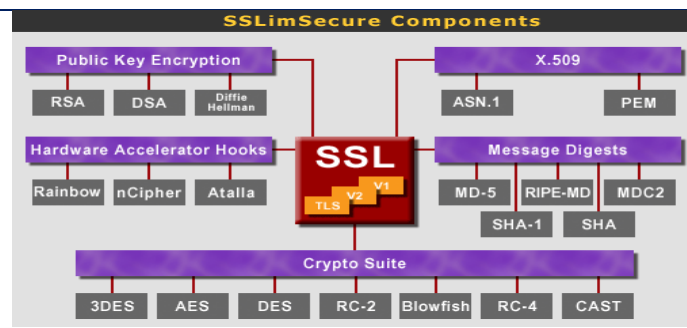
A one day workshop on “Developing application with Service Oriented Architecture (SOA) using .NET” was conducted to the campus placed students of CSE/IT on 24th January 2015. Mr. SP. Srinivasan, a Microsoft Certified Professional was the resource person. The students were given training on the topics such as web services, creating and consuming web services, Windows communication foundation 4.0, SOA using WCF.

Golden Jubilee Year Celebrations

The Golden Jubilee Year of the Computer Society of India was celebrated by the Tiruchiarappalli Chapter on 1st March 2015 at the Bharathidasan University Technology Park, Khajamalai, Tiruchirappalli. Many members, including past office bearers of the chapter, took part in the celebrations. The senior members shared their past memories and experiences in the society right from the year the chapter was formed. A Memoir was released and presented using PowerPoint during the proceedings. Mementoes were presented to all the senior members present, in recognition to their distinguished services to the society. The highlight of the day was the presence of Col. Shivaraj, Fellow CSI and President, Munirka Vihar Welfare Association, New Delhi in the celebrations. He also shared some of his experiences in CSI. He also emphasized on the effective role to be played by all the members to take the CSI to great heights and render their contribution towards the development of the Nation. Earlier, Sri G.S. Raghunathan, Chairman, Tiruchirappalli Chapter welcomed the gathering. Dr. T. Abdul Razak, Secretary, Tiruchirappalli Chapter proposed a vote of thanks. The celebrations concluded with national anthem followed by lunch.

Management Committee Meetings

Management Committee meetings was held on 07-02-2014. Most of the EC members attended the meeting, actively took part in the deliberations and many resolutions pertaining to the excellent conduct of various activities in the chapter were made.



New Student Branch Inauguration

A new student branch of Computer Society of India was started at Nehru Memorial College, Puthanampatti. The branch was inaugurated by Shri. G.S. Raghunathan, Chairman, CSI-Tiruchirappalli Chapter and AGM, Informatics Center, BHEL, Tiruchirappalli on 16th March 2015. While inaugurating the branch he said that there is a distinct gap between expectation from Industries and reality from Institutions. CSI tries to reduce this gap by giving exposure to the students from industry perspective. He elucidated the various activities of CSI.

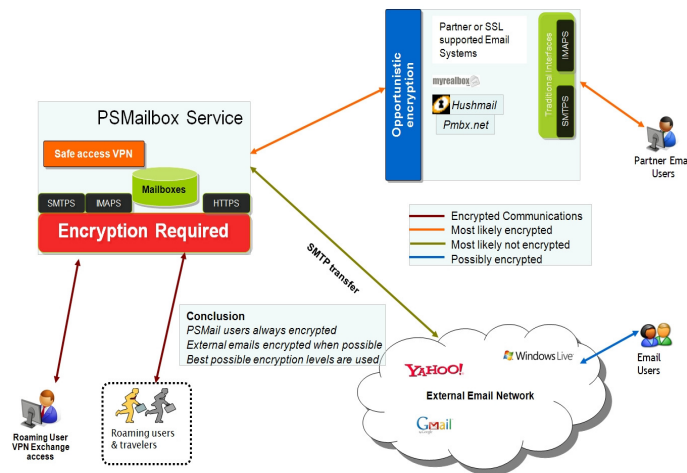
Dr. T. Abdul Razak, Secretary, CSI-Tiruchirappalli Chapter & Associate Professor, Department of Computer Science, Jamal Mohamed College, Tiruchirappalli and Shri. N. Sekar, Executive Committee Member, CSI-Tiruchirappalli Chapter & Retd. Manager, BHEL offered felicitations. Er. Pon. Balasubramanian, Secretary & Correspondent of the college, presided over the function. Dr. T. Jayaprakasam, Principal welcomed the gathering and Ms. R. Akila, the Student Branch Coordinator, proposed a vote of thanks.



Just for Thought

If wisdom of life is a secret, then it is a collective insult to all of us, for having allowed it to remain secret. When more and more of us live more and more by what we know... when more and more of us become living role models... there will no more be secrets.

Secure email how it works!



What is HTTPS?

$$\text{HTTP} + \text{SSL} = \text{HTTPS}$$

(Hypertext Transfer Protocol) (Secure Socket Layer) (Hypertext Transfer Protocol Secure)

Defines how messages are transmitted between visitor's browser and website's server.

Protects and encrypts information sent across the Internet.

Encrypts information sent between browser and server.

HTTPS makes it harder for hackers to break the connection and steal personal information such as credit card numbers, addresses, passwords, etc.

HTTPS helps further protect the privacy of your visitors!