Global
Communications
Newsletter

June 2005

Distinguished Lecturer Tour in India

By Andrzej Jajszczyk, Poland

I was invited by local Chapters from Mumbai, Kolkata, and Bangalore. This invitation made it possible for a fascinating trip to India. Even before landing in this beautiful country I enjoyed an interesting talk. Waiting for a plane to Mumbai, in the Business Lounge of the Frankfurt airport, I met Lech Walesa, the former President of Poland, Nobel Peace Prize laureate, Solidarity Union leader, and a hero who led Eastern Europe toward democracy. He also was on his way to deliver a lecture somewhere in the world, although, I suppose, on a rather different topic than mine and aimed at a different audience. Drinking coffee, we were chatting about our country, world politics, and life in general. I have to admit that without his courage and vision many years ago, my current DL tour probably would not be possible.

I arrived in Mumbai (known also as Bombay) on October 31 at 1:30 a.m. The night was quite warm with the temperature reaching 28° C. While on my way to the hotel, I realized that the saying "Mumbai never sleeps" was absolutely true. Lots of people of all ages walked, worked, ate, and rested by the sides of the road. New construction sites were everywhere. They seemed to compete with shacks that were built with any material available. Despite being night, the streets were crowded with cars and lots of three-wheeled motorized rickshaws. Finally, we reached Hotel Rodas in a new fashionable neighborhood called Hirnandani Gardens.

Next day at noon I was picked up by Ashok Jagatia, Secretary of the local ComSoc Chapter. We went across fascinating Mumbai, the largest Indian city with more than 17 million inhabitants, and its financial and business capital. In a nice restaurant we met Dr. Madhukar V. Pitke, Chair of the ComSoc Chapter here, and R. Muralidharan, te Chair of IEEE-India Council. I certainly enjoyed the spicy but very tasty Indian food. We talked about IEEE activities and our countries.

At 2:30 pm, two really nice members of the IEEE Student Branch, Aarthi Bhalla and Prasun Johari, took me on a sightseeing tour of the southern part of Mumbai. We began the tour with the Siddhivnayak Temple, a very important place to local Hindus. Then we stopped at the Gateway of India, a huge archway built to commemorate the visit of King George V and Queen Mary to India in 1911. Not far from the gate, there was another important building, the magnificent Taj Mahal Hotel, built in 1902 in the so-called Indo-Saracenic style by famous Indian industrialist J. N. Tata. Our next stop was Jehangir Art Gallery, one of the best known galleries exhibiting modern Indian art in the city. We walked through several exhibits, talking with the artists and discussing their work. After a cup of coffee we went to Chhatrapati Shivaji Maharaj Vastu Sangrahalya, known earlier as Prince of Wales Museum of Western India. A huge post-colonial building was located in a beautiful garden. My tour concluded with a spectacular panorama of Mumbai seen from the sea coast and a view of Haji Ali Mosque containing the tomb of a Muslim saint who died while on pilgrimage to Mecca.

On Monday morning I was picked up by Raju R. Hira from Tata Consultancy Services (TCS). We went to his company, located in the northern part of Mumbai. TCS is the largest IT company in the Asia Pacific area. The branch of TCS I was visiting specialized in telecommunications software development for Nortel. I was impressed by its newly renovated building. In an elegant conference room I met a group of about 30 engineers. I learned about the achievements and future plans of the company. After a brief visit to laboratories I presented a 40-minute informal talk on next-generation optical networks, followed by an interesting discussion.

After lunch I went to the Indian Institute of Technology, an educational and research institution highly respected also outside India. The campus for about 6000 students was quite large and was surrounded by a tropical forest. I visited several telecommunications laboratories and met some professors from the Department of Electrical Engineering. My lecture, entitled "Towards Automatically Switched Optical Networks (ASON)," took about two hours. It was attended by 45 people, including 11 faculty members, 12 professionals from industry, and 22 students. The lecture was interrupted by numerous interesting questions from the audience. At supper, in an excellent restaurant called Mainland China, I met a group of active IEEE members from both academia and industry.

Early in the morning on November 2, I went to Kolkata (Calcutta). At the airport I was picked up by Professor Palaniandavar Venkateswaran, Treasurer of the local IEEE ComSoc Chapter and a lecturer at Jadavpur University. We went to the New Kenilworth, a lovely colonial-style hotel in the center of the city. The afternoon was devoted to sightseeing. I was accompanied by three nice guides, Mrs. Chitra Bir who was an expert in the history and attractions of Kolkata, as well as Ms. Madhubanti Maitra and Dr. Iti Saha Misra, readers with the Electrical and Electronics, and Telecommunications Engineering Groups of Jadavpur University, respectively. We visited beautiful Marble Palace belonging to Raja Rajendrath Mullick and his descendants, Sheethaluathji Temple built by

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TELSIKS Through the Years

By Bratislav Milovanovic

The last decade of the second millennium was characterized by exceptional development and expansion of telecommunications. At that time, there was a need in our country for some events that would gather the experts in this area. Therefore, in 1993 a conference on telecommunications in modern satellite, cable, and broadcasting services named TELSIKS was initiated by Professor Bratislav Milovanovic, Faculty of Electronic Engineering, University of Nis.

The first conference, TELSIKS '93, was held October 7–9, 1993, in Nis. It had a national character, and was focused on satellite and cable television and high-definition television. The conference was organized by the Faculty of Electronic Engineering, University of Nis. The most competent Yugoslav experts in TELSIKS program topics took part in the conference. After the review procedure 69 regular papers were accepted, of which four papers came from abroad. The papers were presented in one plenary and eight regular sessions.

The second conference, TELSIKS '95, was held October 10–12, 1995. The organizers and location were the same as two years before. Over 140 papers were presented by local and international authors. Although the conference kept its national character, international contributions were significant. The increased number of papers in comparison with the first conference showed that TELSIKS had become, in a short time, a well-known conference with a significant place among other scientific meetings.

Substantial progress in the series of TELSIKS conferences was achieved in 1997 when the conference obtained an international character and IEEE technical co-sponsorship. The 3rd Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services, TELSIKS '97, was held October 8–10, 1997. An International Program Committee was established with about 50 percent of its members from abroad. It was very significant that a technical cooperative sponsorship was obtained from IEEE Microwave Theory and Techniques Society. Special support was obtained from the well-known U.K. publisher Financial Times — Media & Telecom, whose *Cable and Satellite Europe Magazine* and *Cable and Satellite Express* were presented during the conference. TELSIKS '97 focused on modern broadcasting technologies such as multipoint multichannel distributed services (MMDS). All submitted scientific and application-oriented papers were reviewed by the International Review Board, composed of about 140 foreign and domestic experts. On this basis, 175 papers were accepted and presented in 18 parallel oral sessions and four poster sessions.

The fourth conference, TELSIKS '99, was held October 13–15, 1999. When the preparation for TELSIKS '99 was at its most intensive, bombing started in our country. The TELSIKS Organizing Committee made many efforts during the time between TELSIKS '97 and TELSIKS '99 to provide some new IEEE sponsorships, in addition to the IEEE MTT-S cooperative sponsorship obtained earlier. After a common procedure, technical co-sponsorships were obtained from Antennas and Propagation Society (AP-S), IEEE Communications Society (ComSoc), and IEEE Region 8 as well. In addition, for the first time, the Conference Proceedings were accepted as an IEEE publication. One hundred twenty-three regular contributed papers were accepted for oral or poster presentation. In addition, a number of experts in the areas of the conference topics were asked to present their research results, so 25 invited papers were included in the Conference program.

The jubilee fifth conference, TELSIKS 2001, was held September 19–21, 2001. This conference was technically co-sponsored by IEEE Region 8 and four IEEE Societies: MTT-S, AP-S, ComSoc, and BT-S. After a reviewing procedure by the International Review Board, 127 papers with original scientific contributions were accepted, accompanied by 33 invited papers. The authors of regular and invited papers were from 21 countries. The conference technical program was organized in 17 parallel oral sessions, seven poster sessions, and two special sessions. The Conference Proceedings, published before the conference in both classical and electronic (CD) form, was distributed as an IEEE publication (Book Broker Post-Conference Distribution Program).

The latest conference, TELSIKS 2003, was held October 1–3, 2003, at the Faculty of Electronic Engineering, University of Nis, Serbia and Montenegro. It was organized under IEEE MTT-S, ComSoc, AP Society, and Region 8 technical co-sponsorships and in cooperation with many domestic societies. About 220 papers were submitted for the conference, covering the main conference topics: mobile communications, classical cable and optical communications, multimedia communications, RF and microwave techniques, antennas and propagation, electromagnetic compatibility, digital signal processing, broadband wireless access, telecommunication networks, modulation and coding, Internet technologies, and others. Each paper within the "regular papers" category was reviewed by at least two members of the International Review Board, following a rule that the reviewers were from different countries. At the end of the reviewing process, 150 regular papers were accepted for oral or poster presentation. In addition, a number of experts were called to present their invited papers. At this year's conference an invited plenary talk and 18 invited keynote talks were given. Also, nine invited papers were presented in a special session dedicated to the 70th birthday of Prof. Aleksandar Marincic, who is a member of the Serbian Academy of Science and Art, an eminent scientist, and an outstanding professor in the field of telecommunications. The total number of papers was 178, and the number of authors was 357. From the total number of accepted papers, 100 were organized for oral presentation and 50 for presentation within an open forum (poster presentation). During the three conference days there were 18 oral and seven poster sessions. The authors were from 31 countries and five continents. It should be noted that these numbers are the highest until now in the series of TELSIKS conferences.

The 7th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services, TELSIKS 2005 (www.telsiks.org.yu), will be held September 28–30, 2005, at the Faculty of Electronic Engineering, University of Nis, Serbia and Montenegro. The topics include:

- Satellite communications
- Classical cable and optical communications
- Mobile communications
- Computational electromagnetics
- Antennas and propagation
- RF and microwave technique
- Electromagnetic compatibility
- Broadcasting and digital television
- Digital signal processing
- Multimedia communications
- Broadband wireless access
- Telecommunications networks
- Modulation and coding
- Internet technologies
- New telecommunications technologies and services
- Other

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SatNEx: Satellite Communications Network of Excellence

The SatNEx project has brought together 22 partners from European research organizations and academia to form a pan-European research network. A major objective of SatNEx is to rectify the fragmentation in satellite communications research by bringing together leading European academic research organizations in a durable way.

Furthermore, the network aims to establish critical mass and allow access to a range of expertise currently distributed across Europe. In this respect, mobility is an important aspect of SatNEx's work, with academic staff and research students being encouraged to move between institutions to allow access to specialized research equipment and facilitate research integration.

The philosophy underlying the SatNEx approach revolves around the selection of focused actions in order to capitalize on the expertise present within the network and ensure that the integration is effective and durable. These focused actions are carried out jointly by the partners, and include research, integration, and dissemination activities. The research activity, in particular, focuses on addressing knowledge gaps that may be present within the network and on extending the existing knowledge base, which is established at project startup by the various partners.

Training represents an important part of SatNEx's remit and is supported through a number of initiatives including the hosting of internship projects, the establishment of summer schools, and the dissemination of papers of a tutorial nature. Details of the training opportunities offered by SatNEx, together with other ongoing activities, can be found at the SatNEx Website: http://www.satnex.org.

SatNEx is interested in working in a fruitful relationship with industry. Representatives from the European space industry, satellite operators, and regulation/standardization organisations involved in satellite communications are members of the SatNEx Advisory Board which emphasizes the contact to industry and standardisation bodies.

Facts and Figures

SatNEx is a Network of Excellence under EU Framework Programme 6 for Research and Development. The project is relevant to the thematic priority Information Society Technologies (IST) and is in line with the strategic objectives Mobile and Wireless System Beyond 3G and Broadband for All.

Twenty-two partners from nine European countries are involved in the project, which is of two years duration. The project budget amounts to €4.4 million.

SatNEx is coordinated and managed by the Institute of Communications and Navigation of the German Aerospace Center (DLR).

Partners

Deutsches Zentrum für Luft- und Raumfahrt e.V. (coordinator), Germany
Aristotle University of Thessaloniki, Greece
University of Bradford, United Kingdom
Budapest University of Technology and Economics, Hungary

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EUROCON 2005 Conference
Sava Center, Belgrade, Serbia and Montenegro, November 21–24, 2005
Call for Papers

We are kindly inviting you to submit original and unpublished paper proposals to:

Special Session

Synergy vs. Convergence in the Wireless and Hybrid Mobile Broadband Communications Beyond 3G

The mobile communications industry increased year after year at the end of 20th century and the beginning of the third millennium. Consequently, the demands on the access network and system infrastructure increased constantly, especially after the first third-generation (3G) mobile communications system implementations.

In this context, the interoperability of existing communications technologies and exploitation of their capabilities became more and more significant. Since wireless/access networks represent a bottleneck in the development of mobile broadband communications, two different approaches have been noticed: synergy that exploits the differences and particularities of each technology, and convergence that pushes to increase the similarities between them.

Contributions to areas reflecting both the synergy and convergence between wireless and mobile broadband communications technologies are welcomed.

Proposed Topics

- 3G and beyond 3G mobile communications
- OFDM and UWB: candidates for wireless access technologies Beyond 3G
- Broadband wireless access technologies (WMAN, WLAN, WPAN) in the B3G era
- Multilayered mobility
- DVB and interoperability with other communications systems
- Security issues in wireless and mobile communications
- QoS management in hybrid and wireless networks
- QoS and perceived QoS measurements and evaluation in hybrid and wireless networks
- Legal and political issues for communications technologies development in Central and Eastern Europe

Important Dates

Paper submission: June 25, 2005
Acceptance notification: July 20, 2005
Submission of camera ready version: September 15, 2005
Registration until: October 15, 2005
Final program: October 2005

The proposed papers, of four A4 pages maximum length, will be sent directly to the organizers. The template for the papers could be downloaded from http://www.eurocon2005.org.yu/?p=papers . Information related to the conference, program and registration is presented through the Conference website (http://www.eurocon2005.org.yu). An IEEE copyright form should accompany your final submission. You can get a .pdf, .html, or .doc version at http://www.ieee.org/copyright. Authors are responsible for obtaining any security clearances.

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DISTINGUISHED LECTURE TOUR/*(cont'd from page 1)*

Jains in the 19th century, as well as the order of the Missionaries of Charity with the tomb of Mother Teresa. At dusk we had a short walk along the bank of the Hooghly River, the main tributary of the Ganges.

Next morning I went to the Indian Institute of Management (IIM). The beautiful campus was located in a large green area covered with meadows, lakes and marshes. My talk, "Next-Generation Optical Networks: Challenges and Solutions," was delivered as part of a one-day IEEE Workshop on Managing Next Generation Networks. The workshop was chaired by Professor Debashis Saha of the Management Information Systems Group, Chair of the local Chapter. My 90-minute presentation, followed by about 30 minutes of questions and answers, was attended by about 40 people, including 15 faculty members, 15 engineers from industry, and 10 students. After lunch I attended three shorter presentations of the workshop. The day was concluded by a spectacular light and sound show at Victoria Memorial.

On Thursday I flew to Bangalore, the IT capital of India. The city looked great, with its beautiful parks, modern buildings, and wide streets. I stayed in the Atria Hotel on Palace Road. In the afternoon the local organizers of my lecture tour arranged an interesting excursion. I visited such places as Bangalore Palace, spectacular Lalbagh Park, the palace of Tipu Sultan, and a huge Hindu temple, Sri Sri Radha Krishna-chandra. The day was concluded with delicious Indian food at a supper with C. R. Viswanath of Anand Technology Services Ltd.

The following day, after breakfast and tea with Raghav N. Gulur, President and COO of CG-Smith Software, I went to the premises of Axes Technologies. The company specializes in software development and verification, mainly for Alcatel and Motorola. I was guided by two COOs of the two company divisions, A. K. Prasad and R. Ramakrishna. The modern, beautifully decorated, and well equipped buildings were really impressive. I was asked to deliver an ad hoc talk on trends in optical networks. The talk, in a nice conference room, was attended by about 30 people. Then we had lunch in the excellent Keravalli restaurant with top-class Indian cuisine.

My lecture, preceded by a buffet, began at 6 p.m. in the Atria Hotel and was attended by 37 engineers from industry and 10 people from academia, filling up the whole room. The lecture, along with an interesting discussion, took about two hours. The next day we took a nice trip with Chandrashekaran Prabhu to Nandi Hills, located about 60 km from Bangalore.

A supper in the fashionable Chinese restaurant The Rice Bowl concluded my wonderful visit to India. I have to admit that I was really impressed by the changes I observed, the hospitality of the people, and the beauty of the country.

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SATNEX/*(cont'd from page 3)*

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TELSIKS THROUGH THE YEARS/*(cont'd from page 2)*

The International Technical Committee includes well-known scientists from Bulgaria, Canada, Germany, Hungary, Poland, Russia, Turkey, the United Kingdom, United States, Ukraine, and other countries as well, and papers are expected from more than 40 countries. An exhibition will be held September 28–30 related to the conference topics. In addition, two workshops and two roundtables will be organized during the Conference.