

newsletter

Electrical Engineering Students' European association

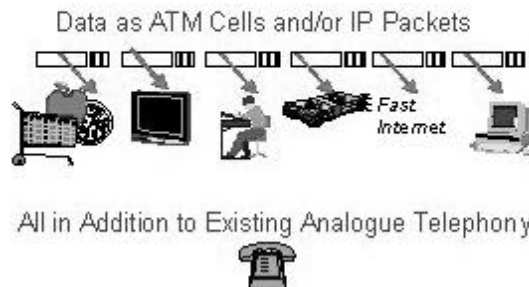
The EESTEC Newsletter is published monthly. It hopes to reach all EESTEC members and keep them informed of EESTEC activities. It can be downloaded from <ftp.eestec.org>

**February 2000
Volume 14, No. 2**

Founded in 1986, EESTEC is an organisation that promotes the exchange of ideas, and the development of international contacts, between engineering students and companies throughout Europe. EESTEC now has 28 branches in 18 different countries.



Data & Telephony on One Line



All in Addition to Existing Analogue Telephony



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LJUBLJANA

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EDITORIAL

Dear EESTEC members,

In this issue, we have invited Nortel Networks, one of the companies who had kindly sponsored the London Workshop, to tell you about themselves in *OPPORTUNITIES*. Contact information is provided if you are keen to have a career with Nortel Networks. In *THE LEADING EDGE*, we have an article on Asymmetric Digital Subscribers Line (ADSL). If you are interested in this topic, check out LC Coseza's Workshop on Internet Improvements in *A FUTURE LOOK*.

This month, LC LJUBLJANA presents their past, present and future in *LC OF THE MONTH*. In the section *IN RETROSPECT*, we have accounts of 2 past events lined up for you, namely, the Slovenia Exchange and the fun-filled Gluehweinweekend. Bernie once again give you his viewpoint on the borders of EESTEC in *INSIGHT*. Finally, EESTEC International Webmaster Guillermore Perez Perez writes about his profile.

I hope you enjoy this issue, and please feel free to write to me if you have any comments!

Yours sincerely,



Denise
(Hwee Peng, Ang)
EESTEC Newsletter Editor



NORTEL NETWORKS™

How the world shares ideas.

Nortel Networks leads the world in designing the communications networks that are shaping the New Internet. A global company with over 70,000 employees working in 150 countries across every continent, the company is an exciting culture that offers unparalleled career opportunities.

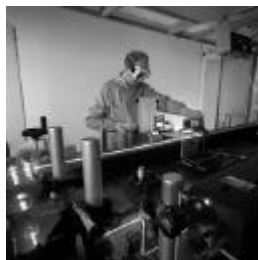
Communications technology is changing the way we think, work and play and Nortel Networks is leading the way by bringing together voice, data and video into single unified networks. To continually develop such advanced networks, we invest heavily in research and development - over US\$2.5 billion in 1999. We conduct development of new products and enabling technologies at over 40 R&D locations across the globe.

With more than 1,300 employees, our Harlow Laboratories represent the corporation's largest R&D facility in Europe. It is a multi-disciplinary centre that is focussed primarily on the evolution of carrier networks, together with a significant amount of wireless network development. The range of activity gives it one of the broadest research and product development mandates of any site in the corporation. Consequently, Nortel engineers cover a broad span of skills and expertise encompassing electrical and electronic engineering, software, RF and mechanical engineering.



The Harlow Labs

Established in 1959, the labs' origins are linked to an eminent heritage of technical achievement and innovation, including a number of prominent breakthroughs and achievements that spawned some of today's most advanced telecommunications technologies. For example, it was there in 1966 that George Hockham and Charles Kao first proposed optical fibre communication. This tradition is continued today with the Harlow Laboratories boasting a leading-edge capability in optical communications where terabits-per-second capacity, all-optical networks, optical switching and advanced optical components are researched.



Drawing on a comprehensive understanding of the needs of the ETSI market, engineers also have an important role in developing products for the European market. This strength is evident in Harlow's position as the European centre responsible for evolving Nortel's current data products for carrier service providers. These products offer integrated voice and data access across a packet-based infrastructure.



The past year has seen many successes for Nortel in the fast-paced world of telecommunications - successes that rely on the personal contributions of all our employees. At Nortel Networks our relaxed and open culture supports a flexible and innovative approach that provides customer-focussed results. At research and development centres, such as the Harlow Labs, you really are exposed to the next wave of technology that's changing the way we communicate.

Nortel Networks needs more engineers who combine first rate technical skills with personal drive, adaptability and customer orientation. In addition to excellent career prospects for talented graduates, we offer a number of industrial placements in UK to undergraduates. These can take the form of 6-12 month sandwich courses or 5-12 week summer vacation placements.

To find out more about working side-by-side with some of our brightest minds at places such as the Harlow Labs, you can visit our website:

www.nortelnetworks.com/careers

or email:

work@nortelnetworks.com

or send a typed CV to:

**European Resourcing Centre
Maidenhead Office Park
Westacott Way
Berkshire SL6 3QH**

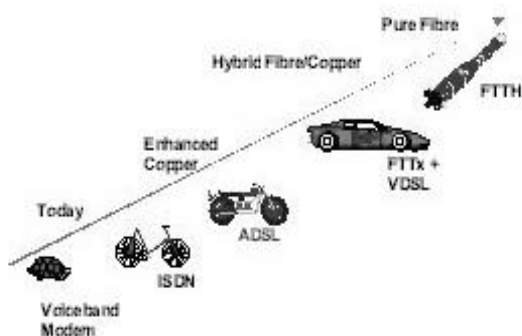
adsl

written jointly by *Francesco Fragale & Enrico Natalizio*
LC Cosenza

INTRODUCTION

In the last decade we have seen an explosive growth of the Internet and demand for high-speed data access by both the corporate and private consumers. Also there has been an increase in demand for new applications like real-time, interactive multimedia and broadcast quality video. These include collaborative computing, video conferencing, distance learning, home shopping and video on demand. The proposed and developed solutions so far like Cable modems, ISDN, Satellite and Fibre Optic cables are able to some extent to meet the needs but at a great cost. The largest cost comes from installation and maintenance of the equipment. Here it is a presentation of a new technology that has emerged which promises to give a very high bit data rate and a cost effective access solution to offices and homes.

"Evolution of Digital Access"



ADSL INTRODUCTION AND DESCRIPTION

In 1989 Bellcore developed an idea of using ordinary telephone lines to transmit video, image and data at million bits per second. They have responded to the current requirements of the Client-to-Server Model where the downstream demand is about 10

to 1 to the upstream demand. Therefore the line created by a pair of modems enabled data to be transmitted asymmetrically with downstream transfer rates of 1.5Mbps and upstream of 16 to 64kbps. This new technology was named appropriately Asymmetric Digital Subscribers Line or ADSL. Since then the technology has matured and at the moment the downstream speeds are around 9Mbps and upstream at around 640kbps. In meantime the markets have changed and different requirements have emerged. At first ADSL was developed for Video-on-Demand applications as MPEG movies need around 1.5Mbps and as a way for the phone company to catch up with cable TV companies in providing this service. At the click off a button to be able to rent the latest movies at our convenience over the existing telephone line. Another important application is Distance Learning to classrooms at remote locations with interactive real time video. Basically with this new technology the phone companies are able to capitalize on their biggest asset - the plain old twisted pair copper lines. With DSL the phone companies are able to bring the information superhighway to the mass market. Before anything else a brief description of the system is required. ADSL belongs to a family of copper access technologies that include VDSL, HDSL, DSL, SDSL and others jointly referred to as xDSL. All of these are modifications or improved methods of handling transmission of information over the line. All of these are intended for implementation in the local loop or the last mile to the end user.

Asymmetric Digital Subscribers Line (ADSL) as the name describes is asymmetric, meaning that it allows more bandwidth downstream that is from NSP to the customer site that is upstream. Also it is always-on access so there is no call setup sequence. Therefore it is ideal for Internet/intranet surfing, Video-on-Demand and remote access of LANs. It supports speeds between 1.5 to 8Mbps downstream and from 640kbps to 1.54 Mbps transmission rates upstream at distances of 18000 ft over single twisted pair of wire. The optimal speeds of 6Mbps to 8Mbps are achieved at distances of 3 to 3.7 km.

Rate-Adaptive Digital Subscribers Line (R-ADSL) is very similar and has the same transmission rates as ADSL but it adjusts dynamically to varying lengths and qualities of twisted pair local access lines. During connection time the equipment can select the best speed automatically.

ADSL Lite is a lower speed version of ADSL that supports both data and voice and would eliminate the need for a POTS splitter at the premises, therefore the installation is simplified and cost reduced. It also works over longer distances so it is more suitable for mass-market consumers. It is spearheaded by the Universal ADSL Working Group that supports the development of a worldwide G.Lite standard within the International Telecommunications Union.

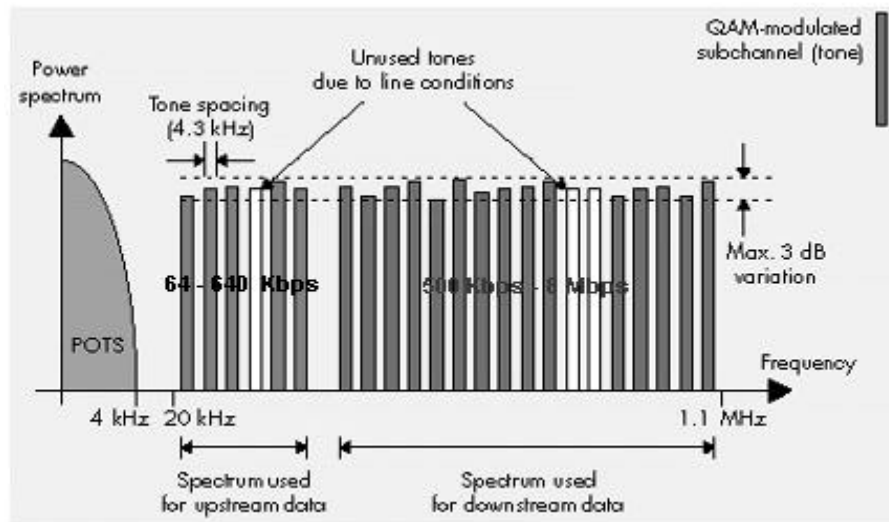
High Bit-Rate Digital Subscribers Line (HDSL) on the other hand is symmetric and therefore provides same speed downstream as upstream. It gives speeds of up to 1.544 Mbps over 2 copper pairs and 2.048 Mbps over 3 copper pairs. It is the most mature of all and already has been installed in telecommunications companies and between campuses.

Very high Bit-Rate Digital Subscribers Line (VDSL) is the fastest xDSL technology that supports downstream rate of 13 to 52Mbps and upstream of 1.5 to 2.3 Mbps over a single copper pair. However it operates from 3 to 15 km. It is a cost effective alternative to fibre optic cable. This is suitable to deliver High Definition TV and video on demand to consumers at short distances.

HOW DOES IT WORK?

In 1948 Claude Shannon published a paper that gave us an understanding of channel capacity for power and band limited gaussian noise channels, as is our analog telephone voice channel.

$$C = B \times \log_2(1+S/N)$$

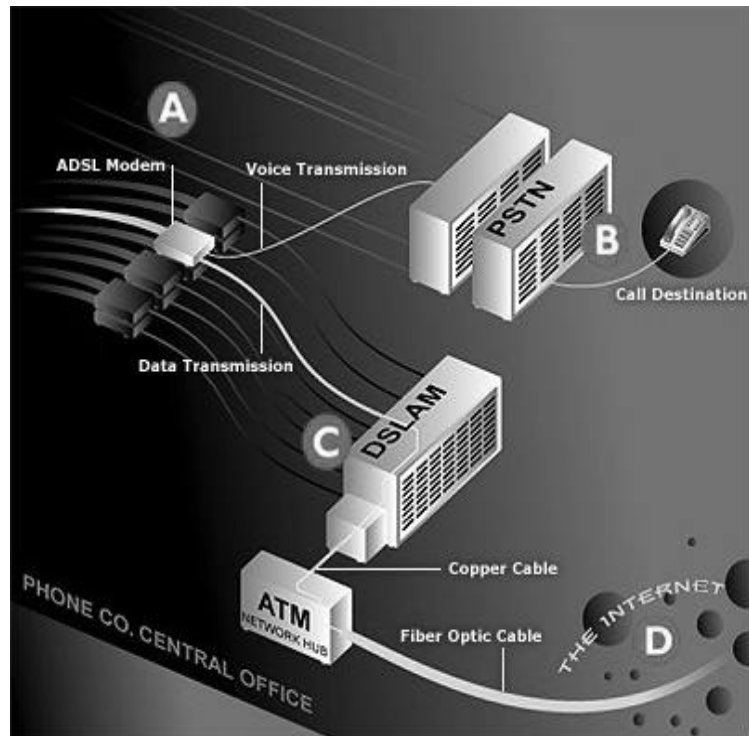


where B is the channel bandwidth in hertz (Hz), and S/N is the signal-to-noise power ratio (in Watt) at the input to the digital receiver. The formula is known as the Shannon's Limit and it is the limit up to which the capacity of the channel can be used effectively and reliably. Since then modems have been manufactured that come close to this limit. At the present time there is the V.34 modem that supports 33.3 kbps that achieve 10 bits per Hertz of bandwidth, a figure that approaches the theoretical limit. We also have 56kbps modems that are also asymmetrical but do not meet the ever increasing demand for more speed. Therefore some very fundamental changes have to be made to increase the throughput.

At this point it should be noted that the bandwidth limitations of voice band lines are not a function of the subscriber line but the core network. Filters at the core network limit voice grade bandwidth to approximately 3.3 kHz. Without these filters copper twisted pair lines can pass frequencies into the megahertz regions. However the copper line is frequency limited because the attenuation of the signal is a function of line length and the signal frequency.

In order to increase the use of the line ADSL modems create three information channels - a high-speed downstream channel, a medium speed duplex channel and a POTS (Plain Old Telephone Service) channel. The POTS takes the bottom 4kHz band from DC and is an analog channel that is split off from the digital modems by filters so therefore it guaranties an uninterrupted telephone service even if the ADSL fails.

ADSL depends upon advanced digital signal processing techniques and algorithms to squeeze so much information into the wire. To create the channels the modems divide the bandwidth using Frequency Division Multiplexing (FDM) or Echo Cancellation. One band is for upstream and another for downstream. The downstream channel is then divided by Time Division Multiplexing (TDM) into one or more high-speed channels and low speed channels. The upstream band is also multiplexed into low speed channels. All this is being done in two very different methods or standards that compete between each other. One method called Carrierless Amplitude Phase (CAP) Modulation modifies a single carrier frequency signal with the message signal. Before transmission the carrier is suppressed as it does not carry any information. At the other end it is reassembled by the receiving modem. Before transmission the system checks the quality of the line and determines the most suitable speed. This is system is available and is less complex than the others although it has not been accepted by the American and European Standard Groups. The other standard is called Discrete Multi-Tone (DMT) Modulation. It is a multi carrier system. In order to reduce the noise in the line DMT discretely divides the available frequencies into 256 sub-channels or tones. At start up a test is done to determine carrying capacity of each channel therefore each sub-channel works at different speeds. The incoming data is broken up into number of bits and distributed along the sub-channels. Due to noise at higher frequencies more data is distributed along lower frequency channels



passes from the ADSL modem to the digital subscriber line access multiplexer (DSLAM). The DSLAM links many ADSL lines to a single high-speed asynchronous transfer mode (ATM) line, which in turn connects to the Internet at speeds up to 1Gbps.

D. Back at You: The data you request is retrieved from the Internet and routed back through the DSLAM and ADSL modem at the phone company's central office before coming back to your PC.

PROBLEMS AND CONCLUSION

The biggest problem with ADSL -and other types of DSL- is access. In general, the maximum range for DSL without repeaters is 5.5 km. As distance decreases toward the telephone company office, the data rate increases. Another factor is the gauge of the copper wire. The heavier 24-gauge wire carries the same data rate farther than 26-gauge wire. If you live beyond the 5.5 kilometres range, you may still be able to have DSL if your phone company has extended the local loop with optical fibre cable. Although many businesses are that close to a central office, the 5.5 km rule permanently excludes, for ex-

ADSL SYSTEM STRUCTURE

A. Over the Wire: At the other end of the phone line -5.5 km away at most- is another ADSL modem, located at the phone company's central office. This modem also has a POTS splitter, which separates the voice calls from the data.

B. Telephone Calls: Voice calls are routed to the phone company's public switched telephone network (PSTN) and proceed on their way as usual.

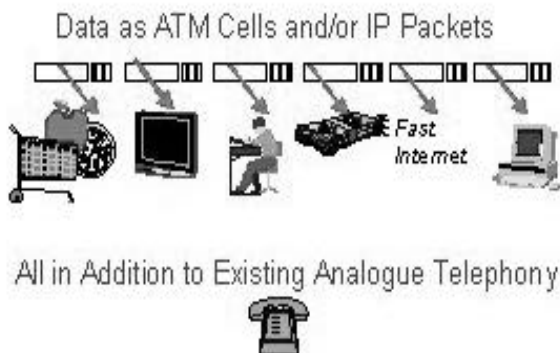
C. Internet Requests: Data coming from your PC

ample, about 40 percent of all homes in the United States since many are in rural and suburban areas.

Data Rate	Wire Gauge	Distance	Wire Size
1.5 or 2 Mbps	24 AWG	5.5 km	0.5 mm
1.5 or 2 Mbps	26 AWG	4.6 km	0.4 mm
6.1 Mbps	24 AWG	3.7 km	0.5 mm
6.1 Mbps	26 AWG	2.7 km	0.4 mm

Copper telephone lines are everywhere. There are nearly 750 million now, and the next century will begin with a number closer to one billion. Today they connect telephones, fax machines, and computers at very slow speeds — 28.8 kbps for modems, 128 kbps for ISDN. Tomorrow, with ADSL, they will connect computers and televisions at speeds up to 9 megabits per second, 300 times faster than modems, 70 times faster than ISDN. ADSL will remove the last bottleneck to high-speed access for the Internet, corporate LANs, E-Commerce, video on demand, video education, and myriad applications we can only imagine today.

Data & Telephony on One Line



The persons interested with this topic are invited to "Internet Improvements" Workshop in Cosenza, where a lecture on ADSL will be held.

NEWSMAKERS

A team of scientists at the University of California, Berkeley have wired a computer to a cat's brain and created videos of what the animal was seeing. They were able to reconstruct natural scenes with recognizable moving objects.

The researchers attached electrodes the thalamus region of the cat's brain and monitored their activity. The thalamus is connected directly to the cat's eyes via the optic nerve. Each of its cells is programmed to respond to certain features in the cat's field of view. Some cells "fire" when they record an edge in the cat's vision, others when they see lines at certain angles, etc. This way the cat's brain acquires the information it needs to reconstruct an image. It could prove a breakthrough in the hoped-for ability to wire artificial limbs directly into the brain. More amazingly, it could lead to artificial brain extensions.

Meet Nomad, a clever robot that is sweeping the frozen landscape of Antarctica in search of meteorites. It may have the appearance of beach buggy, but this machine represents a significant step forward in robotics and could pave the way to a new kind of mission to Mars and the Moon.

Nomad has been developed by researchers from Carnegie Mellon University's Robotics Institute, with funding from Nasa. The four-wheeled vehicle will autonomously search for meteorites and classify them with scientific instruments contained in its manipulator arm. Its current expedition, just underway, marks the first time a robot has been used to discover extraterrestrial material that has fallen to Earth.

"Until now, explorative robots have taken pictures, gathered data and returned what they viewed to scientists who made judgements and decisions," says Nomad's project director, Professor Red Whittaker. "This time, Nomad will make its own judgements and inferences about the rocks that it encounters."

It is said the explorer Christopher Columbus was once saved by a lunar eclipse when his access to food was blocked by native people in Jamaica in 1503. According to the story, he waited for the eclipse he knew was about to arrive, then threatened the locals that the gods would remove the Moon if they did not hand over the food. Lawrence of Arabia used his knowledge of an imminent lunar eclipse to rout superstitious Turkish soldiers at an Ottoman desert fort. As lately as 1974, 16 people died in Cambodia's capital Phnom Penh when soldiers fired guns to frighten off the monkey they thought was eating the Moon.

LC LJUBLJANA

LC OF FEBRUARY

Ljubljana, the capital, city of Culture, home city of EESTEC LC Ljubljana. Our association was officially founded in 1997, under the name “Združenje študentov elektrotehnike in računalništva”. But our history starts much earlier, as one of the founders EESTEC International. Our organisation is even older than our country (Slovenia became independent in 1991).



gress in 1987. Cities of Ljubljana and Nova Gorica hosted 15 Delegations from 14 European countries and Canada as observer. At that time our people (I can't say LC, because back then there was a National Committee, and Slovenia was then a part of NC Yugoslavia, which consisted of more LC all over the state) were also the Newsletter publishers. We are now very proud on our ancestors and their rich heritage to future generations. Unfortunately after that we don't have much records of EESTEC activities. There were exchanges going on all the time, but EESTEC LC Ljubljana was never a big association. It was always a group of friends, prepared to have fun with foreign students. The turning point was the Congress in Finland in 1997. Since then many activities were organised. Students from Ljubljana were always members of bodies of EESTEC International. All led to the biggest EESTEC event in Slovenia: 13th EESTEC Congress 1999. Hotel in Škofja Loka hosted 28 delegations from 18 European countries and two observes.

THINGS WE DONE IN THE PAST

Slovenia (before Yugoslavia) was one of the founders of EESTIC in 1986. Then it was decided, that Ljubljana will be the host of the first EESTEC Con-

WHY, WHAT AND WHERE ARE WE ?

Why ? Because its great to be a student. Not just to study, but to travel, meet foreign people and other cultures, to.... it goes on and on.

What are we? One of 22 associations under KOMISP (Organisational committee of International exchanges and student practice). We represent two faculties (Faculty of electrical Engineering and Faculty of Computer and Information science). Basically, we are a group of people sharing same



Congress 1999

enthusiasm to travel and have fun.

Where are we ? Our official seat is International office in K4. It is situated above the most known student night club in Ljubljana. Our meetings often include free musical massage from the guys below getting warm for a late concert. When you search for us, check the surrounding bars!!!

WHAT TO EXPECT BY VISITING SLOVENIA

Slovenia, the green treasure of Europe. A colourful land with a preserved natural environment lying in the centre of Europe at the junction of three geological regions: the Alps, the Mediterranean, and the Pannonian Plain. The variety of nature, food, wine and beer and agile spirit of local people will never let you be bored. We might spend the night in a mountain hut, having breakfast on a raft boat before paddling down the mountain river, serving dinner in a wine cellar and just catching sunset on the seaside. Or, just cruising through Old city of

Ljubljana, listening to the street concert and having tea in one of many small bars lightened with candles.

PROSPECTS

You never know what you are gonna get, life is like a box of chocolate (Forest Gump). We do know, that EESTEC will go on. This years Congress was a big project for us. But also, it was a huge boost for our LC. It gave us a lot of know-how about organising, many new contacts in companies. A lot have been done on promoting EESTEC to EE students in Ljubljana, so our member list is getting longer and longer. With new people we've got new ideas and energy. EESTEC LC Ljubljana became association respected by students, professors and sponsors! Still, we are trying to be a bunch (although a little bigger then in past) of friends having fun with our foreign colleagues.

Hey, we can't wait to peak a glass, to toast with you, and scream our motto: What doesn't kill us, makes us stronger.



slovenia exchange

written by Eric Schreiber

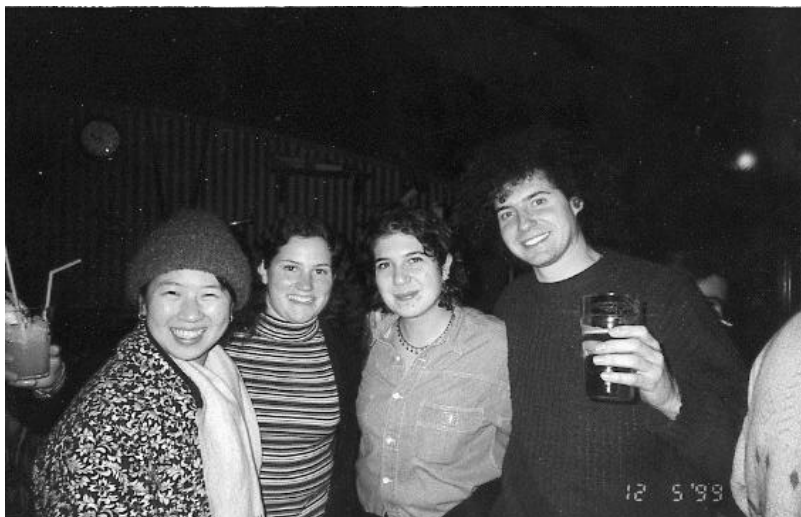
Slovenia? Ljubljana? Where the heck is that?

Before this week my belief was that I had a rough idea of Europe and was sure Slovenia was a lost place out of the safe EU borders with its hostile habitants fighting for survival on the verge of existence (Don't ask me why I still decided to participate in the exchange). Could it be that such a trip reveals some truth affecting in a noticeable increase in geographic knowledge? It's not. It's changing your life !!



Go and participate at an official EESTEC-exchange and you eventually might return but if you do you won't be the same: If you were depressed you will return happy, if you were juvenile and inexperienced before, they will call you Ghandi upon your return, if you were a model before, your friends will be able to count the sleepless nights from your eyes at home, if you were a cucumber you will transform to a celery and if your old characteristics were capacitive you will return as an amplifier !

“What exactly are we going to do down there ?” I have been asked this question severally. I had no answer at that moment but down there I found many: To acquire a rough impression from any country you would need at least two to tree weeks of engaged travelling including the effort of contacting locals to receive firsthand information. We could have this at a much cheaper rate benefiting from the EESTEC-exchange. Accommodated with local students we became part of their family and enjoyed their hospitality while during this week we followed a challenging plan to learn about the most impressive sights of Slovenia.



First we saw the faculty of E.E. of Ljubljana, then we had to carry out a severe investigation of the popular dispute concerning the features of the most popular Slovenian beers: Union and Lasko, further we saw Maribor, the second largest town, a winery, a hydro-power-plant, a ham drying plant, a nuclear power plant and another plant which



by some of the participants is rather felt than seen. Most exciting for me was the Renault factory where you could see sheet metal entering at one side and Clio's exiting at the other (Just like a Swiss factory with cows entering at one side and "Toblerone", ham, pocket knives and "Kirsch" coming out at the end. Yes folks: That's what you gonna see if you come to see OUR faculty !)

Slovenia is just as good as any well developed Eu-

ropean country. It's capital however was showing more Xmas-charm than any town in Switzerland I know. I haven't met such hospitable people for quite some time and I have learnt as much of the country as someone who also is enjoying parties and leisure can bear in one week.

Sum: Thank you for that exciting and marvelous week and see you again for the next EESTEC-event !!!



GLUEHWEINWEEKEND 1999

written by Timo Kontio

Spontaneity should have had to be one of your abilities if you had wanted to decide to come to Aachen for the second "Gluehweinweekend" in December 1999. Only one week before the workshop should have started we invited all EESTECers and so we gave only a few days of thinking to our becoming participants. But we have been defeated. There was one guy (from Sitzerland) who showed to all of us what spontaneity means. Claudio decided half a day before the program started to come with Pamela to Aachen. And so he did! Congratulation!

But the little "workshop on coordination of future foreign activities", how we called it officially, had more participants than the two sweetsies from Suisse. Kristof, Gergely, Peter and Szilard from Hungary, that prepared their participation by spending one year in Karlsruhe (Germany), came, like Claudio and Pamela, on Thursday. Showing their genuine Hungarian Salami, they immediately were fed with the best food our pantry could afford. But we didn't let them rest one minute. The first event was a practical exercise in cheering Icehockey teams on. The team of the electrical engineering faculty - the E-Tech Lions - had to battle with the Aachen Steelers (mechanical engineering) and the Medical Strikers (Medicine). After the tournament, we found out that they must have forgotten to give the enemy teams goals, because we lost every game without having scored one little point. But we didn't take this too serious and went to the aftergame party. Nobody, neither from Aachen nor from Switzerland or from Hungary, remembers anything from the rest of the night.



After touring through the city on friday morning, the afternoon still had a very serious topic: Lectures on "Kegeln", a typical German-like sports, common to



Bowling. The Organising team had planned to show them all 456 figures of how to hit the nine pins with one shot, but we couldn't complete our lecture, estimated length just about nine hours, because our friends from abroad attacked the lane and showed us their interpretation of playing "Kegeln". We still have to pay for some of the damages they caused. (In the last paragraph i exaggerated a bit, .. because we didn't have an Organising team!). After dinner we meet our last participant of the workshop - Cathy from London - staying in Aachen for a short while, from Friday till Sunday. The sad thing was, that nobody had a welcome present for her, because we met her on a birthday party of someone nobody knew, and the host must have mixed up the presents.

Being complete on saturday we visited the beautiful city of Maastricht, only a short bis-ride away. We had hot chocolate in one of the cozy pubs and, of course, Dutch-fries in the famous friture on the market place. But thousands of little shops in the narrow city streets (especially Coffee-shops) also attracted our eyes and noses (and brains and wallets). Then on sunday, during the good-bye-brunch, we finally got the Hungarian Salami and a real cow from Switzerland.

I hope that everybody liked that weekend, because, we from Aachen had a wonderful one!

BERNIE'S VIEWPOINT

Electrical Engineering and the borders of EESTEC

In an email Marco Lackovic <mlackovic@libero.it> LC Cosenza asked me to answer the following questions:

Who can really join the association? I mean, from the name I could say it's an association only for electrical engineering students but I'm a computer technology engineering student but I anyhow am a member of EESTEC and I also know many people of the association who study other fields of engineering and someone isn't even an engineering student. So which are the EESTEC "borders"?

This is quite a hot topic, since several LCs are not consisting of electrical engineering students. In the following I can only give my personal opinion, based on my experience.

My opinion....

...about this is: **Under certain circumstances we can also accept LCs with members, which do not study electrical engineering. But we MUST NOT make any advertisement that we are taking also non-electrical engineering students. Any advertisement must state clearly that we are an organization for ELECTRICAL engineering students.** Even to just to skip the word "electrical" - as I have already seen on some homepage or in the advertisement for the Congress 98 - I strongly do NOT agree with.

The reasons...

...why I think so, are basically the two following ones:

1. **Having too many non-electrical engineering students makes it more and more difficult to fulfill the expectations of the participants of an activity!**

It gets more and more difficult to find suitable technical Workshop topics which are interesting to the major part of the participants. If we want that also non-electrical engineering students have a chance to understand the contributions, the Workshops have to be on such a low level, that it is boring for the electrical engineering students. Are such Workshops meeting the EESTEC goal of having high quality Workshops?

Also the companies like to meet as homogenous groups as possible, in order to make their program as interesting as possible. Furthermore a company is usually interested to advertise itself to possible future employees. It is hardly possible to advertise all fields of jobs within a short time. Thus, with heterogeneous groups, the outcome for the

company is really low. Do we want the companies to lose the interest in EESTEC?



One example: During an EESTEC exchange organized by LC Zurich a company visit at a sponsor resulted in some embarrassing happening. Many of the participants were studying something which was far away from electrical engineering. Those non-electrical engineering students were not at all interested in the things which our hosts were explaining us, since they didn't know anything about the technical background. And I guess that our hosts didn't like this at all: When we asked them next time for sponsoring of our LC, we got a negative answer. I know about other LCs which made similar experience in disappointing companies due showing up with too many non-electrical engineering students.

The problem mentioned in this section is not that big, if the people are studying something, which is somehow related to electrical engineering such as electronics, microtechniques, computer science, ...

2. **Advertising EESTEC is for all kind of (engineering) students, we would concurrence similar associations for other study directions,** such as IACES (civil engineering), ESTIEM (industrial engineering and management), IFMMS (mining and metallurgy), FISEC (food engineering), IAAS (agriculture engineering), EASA (architecture), IFSA (forestry), ...

I think these conflicts should be avoided whenever possible. Do we want that they are starting to recruit electrical engineering students?

Conclusions

EESTEC must NOT take every body, just in order to grow as much as possible. My strong opinion in this is: Quality goes before quantity! Quality in the sense how close to electrical engineering as the companies expect from an "electrical engineering" association.

I do not have anything against non-electrical engineering students at all, and I also do not want to kick anybody out of EESTEC. But we should take care, HOW we are growing. I hope to not to offend anyone with this article; this is not intended. If anyone feels offended, please mail me! So I'd have at least the chance to say I am sorry...

Feel free to send me your comments to <bernie@hoshis.org>.

GUILLERMO PÉREZ PÉREZ*EESTEC International Webmaster*

Name : Guillermo Pérez Pérez (Known as bisho)

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- The development of a schedule of events (calendar).
- Making an easy and accesible database of LCs and EESTEC's members in conjunction with the Yellow Pages project.

There are some objectives that are not finished yet; however, the presence and the usefulness of the pages have been increased considerably.

Interests

I'm interested in projects related with Internet and computers. I like reading, taking photographs (having aspirin, coffee and sleeping not much), and of course, going out with my girlfriend Azucena.

My History in EESTEC

My experience in EESTEC started the second year of my degree (1997-1998) when I began to take part in Eurielec, a club at my school, through which I knew about EESTEC activities in Europe.

The following course (1998-1999) both Fernando Herrera and I carried out a linux distribution (Eurielec Linux) which was a success. It helped to finance our student's exchange with Finland, which I contributed to organize.

Thank to these activities and the preliminary design of the EESTEC International Web Pages, I went to the annual EESTEC Congress in Slovenia. In this congress, the importance of the EESTEC's presence in Internet was reinforced. That led to the creation of the new position of Webmaster, which I was elected for. There, I undertook to achieve these goals:

- The improvement of the web design.
- The improvement of the interactivity (forum, news page).

In October 1999, I was one of the organizers of the wonderful workshop on "Computer Networks" held in Madrid. 25 people came from 11 different LCs. Notable professionals of spanish Telecommunications and important firms took part, such as BT, Lucent Technologies, Andersen Consulting, Banesto, Telefónica and others. The star of the workshop was the debate on "Electronic Commerce", which was very interesting and it's a topic very current in the world nowadays. The organization of the event was very enriching, but also weakened.

Future Plans

I will continue with the development of EESTEC International Web Pages, joining all the services within a sole interfaz (mail lists, Yellow Pages, calendar...). Presently, in my personal life, I'm a little bit busy working in a Tele-Educational portal in a department of my school.

Likewise, some friends and I are creating a company called Onírca. We will give consulting services and solutions to other companies, offering help to adapt them to Internet and the new technologies. Some projects are, for instance, the development of e-commerce software, a spanish portal and to continue with the improvement of our linux distribution (Eurielec Linux). Ah! Also I'm trying to devote a little more time to my degree :)

BORED TALK

Hi everyone and Happy New Millennium!

What has happened recently? Well apart from having some well-deserved holiday the Board has worked at the usual fast rhythm to make EESTEC even more wonderful.

The congress preparation is going well, some people have already confirmed their participation, others are in the process of doing it. The COC is amazingly efficient and organised promoting for the first time a registration on-line. If you have not registered yet, do it ASAP or for any problems contact p.c.h.oudshoorn@et.tudelft.nl (Paul is always happy to answer to any questions, especially from charming ladies!). On very important thing is to remind you that if you want to apply for travel reimbursement for the workshop you must do so by February the 5th. We will discuss then your application and come back to you in a few weeks.

The Board is discussing at the moment the topics for the workshops to be run at the congress. This discussion is in our agenda for the next and last BOM that will be held here in London from the 10th to the 13th of February. Many others points will be discussed and if you have anything to suggest please e-mail us (board@eestec.org).

Two new observers have recently come out in the pipeline, first it would be another Italian LC, from Trieste. I hope at the Congress, people will not blame me for an exaggerated Italian bias, it is absolutely a coincidence! Then observers from Podgorica, Montenegro. So far it is 4 observers at the congress, three of them have already signed in and confirmed their participation. This looks pretty positive.

Enrico, the internal VP, will very soon bomb you again with his third census, the list of demanding questions is still a secret and I am sure you are looking forward to it. Please be prompt in your reply. Before the congress we would like to have all the possible information about you.

Another issue that recently came out is that sometime EESTEC events tend to overlap and this can be dangerous. So please if you plan to organise an exchange or whatever, check if in the same period or in the near time a Workshop or any other events has already been organised. It would be a big shame to work a lot and then too few people manage to take part and the event must be cancelled. The full list of events is monthly published on the newsletter.

That's all,
Take it easy,

Alessia
EESTEC Vice-Chairwoman for External Affairs

FORUM

It was a very quiet month at the Forum. No new topic was posted. There was however a mail describing the mailing problems.

The forum is run very efficiently by EESTEC's own web master. Anyone can post new topics or answer other people's questions. You can even argue against their thoughts.

The online forum can be reached from the main EESTEC Web page URL <<http://www.eestec.org>>.

LETTERS TO THE EDITOR

Dear EESTEC members,

How do you find the previous issue of the newsletter? Do you have any comments or opinions? Please feel free to write to the editor at ateditor@eestec.org or hwee.ang@ic.ac.uk.

Furthermore, if your LC have organised any events recently, or have taken part in an exchange with another LC, please also contribute an article about it to the newsletter. Last but not least, if your LC is organising an event for the future, do not fail to grab the chance to publicise it. Write to the editor now!

Yours sincerely,
Denise
EESTEC newsletter editor

*Accepted letters may be edited
for length and clarity.*

ERRATA

In last month's issue, the article Towards a Networked World was written by Tomas Soroko and not Tomas Soroco.

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EESTEC is represented in its member cities through Local Committees. The association's head office is located in Zurich, Switzerland. Please contact your LC regarding all matters at a regional level. Please contact the board for all international matters.

WORKSHOP : INTERNET IMPROVEMENTS

Dear guys, we're glad to inform you that LC Cosenza is organising the Workshop "Internet Improvements", for 45 EESTCers, in the period between the 28th of May and the 4th of June of this year. Discover the splendid natural landscapes of Calabria, the warmth of its people and the talent of its University!

From the program, which you'll find soon in our renewed web site <http://www.ingegneria.unical.it/asi/> (with an on-line application form for the Workshop), here you are some highlights:

- technical talks and lectures of highly scientific profile about the Workshop topic held by experts, researchers, engineers and professors;
- excursions to the most beautiful beaches of the Tyrrhenian and the Ionian seas and to the high mountains of Sila (almost 2000 meters);
- several visits to Calabrian historical sites;
- ...and of course parties and FUN, SUN, FUN with the crowded LC Cosenza!

The first round of the application will end the 1st of March and at first we can accept 2 persons for each LC (please be sure being your LC official delegates); if you'd like to join us send to me the following informations: LC, First name(s), Surname, Nationality, Gender, Address, E-mail address, Home telephone number, Mobile number, Studying branch, Food preferences, Emergency reference person, His/her telephone number.

Another way to apply will be filling up the application form on our website. I'll let you know when it will be ready together with the information on how to reach Cosenza: we are also trying to prepare a pick-up point in Rome where a coach will bring you to Cosenza at no costs for you!

Marco Lackovic
 LC Cosenza
 Workshop Organising Committee Chairman

CALENDAR

9/2/00 to 13/2/00	19/3/00 to 25/3/00	3/4/00 to 9/4/00
Back-Exchange LC London & LC Vienna	Congress to be held in Delft	Exchange LC Vienna
1/5/00 to 5/5/00	7/5/00 to 13/5/00	21/5/00 to 28/5/00
Exchange LC Twente	Electromagnetic Pollution LC Bologna Workshop	Exchange LC Vienna
28/5/00 to 3/6/00	October 2000	October 2000
Internet Improvements LC Cosenza Workshop	Exchange LC Reggio Emilia	Mechatronics LC Munich Workshop