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2007 number 3

introduction

September 27 saw the official opening of the new academic year 2007-2008 (see pages 2-9). Hard to believe but, yes, another year has passed. Time is often proclaimed an enemy, but could it actually be a friend? Not only was ITC delighted to welcome Professor Salomon Kroonenberg of Delft University of Technology to deliver the Schermerhorn Lecture, but the Institute's guests, staff and students were more than eager to hear his views on global warming set within a timescale far wider than is normally the case. Ten thousand years was the period mentioned, and to assist those of his listeners who had some difficulty in conceiving such a time span, he described The Clock of the Long Now, the mighty timepiece that will peacefully tick away the days, years, centuries and millennia for the next 10,000 years. Obviously this new technology is built to last!

Another speaker on the programme was Ms Sibonile Sibanda, who on behalf of the Student Association Board welcomed the newly arrived students to ITC. She mentioned that ITC had "earned a few choice nicknames over the years" owing to the heavy workload imposed on hard-pressed students. Reference has been made to this in the past, but so far no student - at least to my knowledge - has ever resorted to tunnelling out of the Institute. Nevertheless, valuable experience in this field has recently been acquired by ITC and "can be transferred to the students" (see page 16). Should you wish to ensure the safe receipt of ITC News, however, it may be better to simply rely on the regenerative properties of kiwis (page 14) in times of stress.

Ardhi University certainly receives some coverage in this issue (pages 18, 19, and 21), which gives you the opportunity to catch up on progress in Dar es Salaam, Tanzania. Naturally you will also find articles reflecting the Institute's activities in other corners of the globe. Given the nature of ITC, could you expect otherwise? Whether the contributions appearing on the following pages report on events in your own neck of the woods or on the far side of the world, as always we sincerely hope they will prove enjoyable reading.

Janneke Kalf
Managing Editor

colofon

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Opening Academic Year 2007-2008

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Enschede is a city with renovation and development on its mind and the Grote Kerk in the old market square, scene of many a colourful opening ceremony, has not escaped attention.

As restoration work on the lofty tower was in progress on Thursday, 27 September, the ITC academic year was officially opened in the impressive Jacobuskerk across the way. No complaints concerning change of venue could be heard as the powerful music of organist Mr Gijs van Schoonhoven ushered visitors into the beautiful interior and they made their way down the aisles to take their places on the pews.

Taking his position on the podium, Rector Martien Molenaar welcomed the ambassador of Sri Lanka; Professor Zijm, Rector Magnificus of the University of Twente; Ms Koomen, councillor of the Municipality of Enschede with the portfolio for labour and income; Dr Frits Brouwer, director of the Royal Netherlands Meteorological Institute (KNMI); Ms Temmink, secretary of the Board of the Saxion Universities of Professional Education; Mr Barnasconi of the Board of the Netherlands Cadastre; and members of the ITC Board of Supervisors. And naturally an especially warm welcome went to both special guest Professor Salomon Kroonenberg of Delft University of Technology, who was to deliver the Schermerhorn Lecture, and to the new students. "I welcome the 238 new students who arrived this week from 51 countries. They join the 200 students who came last year and earlier this year, as well as the 90 PhD students who are doing their doctoral research. The new participants of our MSc programme are the first students who will experience our new course structure, which means for the last nine months of their course they will become members of one of our research teams consisting of staff and PhD students."

The ITC academic year was officially opened in the impressive Jacobuskerk

In his opening address, Professor Molenaar set the tone for the proceedings of the first half of the programme. Professor Henk Zijm, Rector Magnificus of the University of Twente, then picked up the baton, followed by Ms Sibonile Sibanda, who welcomed the new students on behalf of the Student Association Board. As Women's Commissioner, she felt her speech would not be complete without a special word to the women among them: "Someone once said that 'whatever women do they must do twice as well as men to be thought half as good'. It's true, but I'm here to tell you that it's really not that difficult. Just remember that to have made it thus far, you have shown that you have the strength, will and courage it takes to achieve more and to have it all." Her remarks were well received by both the women and the men in the audience, which bodes well for a stimulating academic year ahead. Two pleasant duties now awaited the rector of ITC: the presenta-

Opening Academic Year 2007-2008

tion of the Klaas Jan Beek Award 2007 to the writer of the best MSc thesis and the presentation of the PhD Research Award 2007 to the writer of the best scientific paper. Awards are happy occasions for presenters and recipients alike, and in these instances the certificates were accompanied by cheques and flowers.

Now that the business of the first half of the programme had been completed, it was time to sit back and enjoy a delightful musical interlude. The Jacobuskerk provided an atmospheric setting for Ms Janne-Minke Nijp on harp and Ms Féminique van Oosterwijk on flute as they performed *Elfenreigen* by Willy Hess and Entre'act by Jacques Ibert - a performance that received a resounding round of applause from an appreciative audience.

Duly refreshed, all eyes and ears turned with interest towards the new speaker who had mounted the podium: Professor Salomon Kroonenberg of Delft University of Technology, who would present the Schermerhorn Lecture, traditionally the first lecture of the new academic year. No doubt in many quarters his reputation had preceded him, as his book *De Menselijke Maat: De Aarde over Tienduizend Jaar* (The Human Scale: The Earth over Ten Thousand Years) had created quite a furore on its publication in 2006.

The Sri Lankan ITC student community welcomes the ambassador of Sri Linka H.E. Mrs Pamela Deen (left)

Opening Speech

Opening Academic Year 2007-2008

Opening Speech

Rector Martien Molenaar

Professor Molenaar opened by saying that the new students would be joining not only ITC but also the worldwide ITC community consisting of some 19,000 alumni. This is a global knowledge community concerned with geo-information science and earth observation, but other knowledge communities have developed over the last decades and Professor Molenaar went on to mention three. "First, the sustainable development of our living environment requires the understanding and management of processes at scales ranging from local to global level. Just think of the increasing global demand for food, water and energy, of the rapid spread of epidemics, of urbanisation and migration, and of course of climate change. The management of these problems requires the involvement of all nations, with the support of a global scientific community. Second, with the globalisation of the economy we see the development of global delivery chains of products and services. North, South, East and West are involved in these chains, which require a common understanding of the specifications and conditions for procedures and methods for product and service delivery. This common understanding should develop through joint involvement in a global research and development community. Third, most national economies are not able to support high-level involvement in the full range of modern research sectors. National and regional priorities have to be set. In Europe - but also worldwide - we will see an increasingly regional distribution of focal domains for research and for higher education."

Professor Molenaar said that many countries encountered great problems in the current process of globalisation, often lacking the governmental, economic and educational strength to keep pace with these developments. They often needed support for capacity development for both their higher education sector and the professional organisations in the public and private sectors. However, "this is the domain," said Professor Molenaar, "where the Dutch institutes for international education have been active for more than 55 years - and with great success!"

The main objective of capacity development was to strengthen the national economies of these countries - and this is still an important objective. "But the problems facing us and our children and grandchildren are not just economic problems; they concern much wider aspects of the quality of life. Therefore, capacity building should also aim at the development of global knowledge communities to make sure that every country can contribute to the management of these problems."

Turning now to the deepening relationship with the University of Twente, Professor Molenaar said that, since the signing last year of the Letter of Intent to integrate ITC into the University, much hard work had been devoted to elaborating an appropriate model and considerable progress had been made. The actual integration is expected to take effect from 1 January 2010, when "ITC, that is the whole organisation with its present tasks and its present academic profile, will become a university faculty with special status" - a special status reflecting ITC's ODA mission. Dutch universities are developing their international profiles, while ITC's partners abroad increasingly prefer to cooperate with universities since their status is clear - consequently, integration is of mutual benefit, and moreover, it offers exciting

Professor Martien Molenaar

prospects. "The present community involved with geo-information provisions and earth observation is highly mobile and diverse. Our field has become highly dynamic and multi-faceted, but we are dealing now with problems of a much wider scope than can be provided for by the disciplines at ITC alone. Integration in a university will give us access to other disciplines required for these new problem areas."

Finally, Professor Molenaar directed his attention to the bigger picture in terms of international cooperation and higher education. Over the last 20 years, the emphasis in the domain of ITC has changed from data capture to data management, and change and development have become an ongoing process. "The knowledge of newly educated academics is outdated within five to eight years, and they should be re-educated about three to four times during their careers. Most countries do not have the capacity to educate enough young people; they certainly do not have the capacity to retrain their academics and professionals several times during their careers. North-South support will be required for a long time to come."

Professor Henk Zijm,

Rector Magnificus University of Twente

Welcoming the new students, Professor Zijm said the future for ITC looked extremely interesting to say the least. Not only had the subject of "sustainability" finally arrived on the agenda of scientists and some politicians, but the message that urgent action is needed had reached a much wider public - thanks in no small measure to Al Gore's film An Inconvenient Truth. This deepened awareness was of the utmost importance for the domain of geo-information science and earth observation: the techniques in these fields were the first requisite when it came to establishing sound policy or future strategy to handle such issues as climate change, energy consumption, the reduction of carbon-dioxide emissions, water management and the consequences of natural disasters.

Referring to the future integration of ITC with the University of Twente, Professor Zijm said that, while ITC's teaching programme covered a wide range of levels, from basic vocational education, to training of mid-career professionals, to academic master programmes, classical universities generally provided only academic teaching and research programmes, albeit over a much broader range. "But this, of course, offers plenty of opportunities for cooperation […]." He also believed that, while it was naturally important that the strong position ITC holds in developing countries be fully maintained, "ITC should also have the opportunity to carry out research projects in nearby countries, certainly also in the Netherlands, given not only its considerable expertise in fields such as geo-information management but also the fact that research attention is shifting more and more from the technical side towards the application domains." Towards the end of the 20th century, the Netherlands saw two major river floods, leading at least in one case to the evacuation of people and cattle. Naturally, this had re-ignited the debate on creating areas to capture floodwater in such circumstances, and Professor Zijm felt that "ITC's knowledge base might play an indispensable role in developing sound protection policies".

In closing, Professor Zijm wished ITC and all its staff and students a highly successful and very prosperous new academic year - after all, there is "a world to win"!

Professor Henk Zijm

Student Association Board

Opening Academic Year 2007-2008

Student Association Board

Speaking on behalf of the Student Association Board, the Women's Commissioner, Ms Sibonile Sibanda, said that this occasion marked not only the official opening of another academic year, but also allowed "us to take time to welcome the newest members of ITC. So, on behalf of the student body, I would like to extend a heartfelt welcome to you all, to the Netherlands, to Enschede and to ITC, which for the next 12 to 18 months will be your home away from home."

Ms Sibanda said that preparing this address had given her time to reflect on what had been a long, demanding but rewarding road over the past 12 months and she wished to take this opportunity to share some experiences with the newcomers and perhaps give them a glimpse of what student life at ITC may hold in store. She started with the academic side of the coin, which she referred to as "very tough and strenuous" and which had earned a few choice nicknames over the years: "I'm not here to dispel these rumours, but I will say this: do not be intimidated but rather be challenged. ITC is an institution founded on academic excellence, and with excellence comes standards and a certain level of expectations that we all have a duty to uphold through diligence and hard work." Many men and women have toiled, struggled and burnt the midnight oil in times past, but what do they now remember?

Ms Sibonile Sibanda

Success: "and it is all that you too will remember years from now." It is only "through hard work and perseverance that a true master is made".

However, there is a lighter side. ITC shows that the world is not as big as often believed, and the cultural exchange, together with various functions and activities, transports its students to the four corners of the globe, introducing them to some exquisite cuisine, and awarding "each and every one of us a chance to showcase our countries, and tell of our heritage and traditions, for we come here not only as individuals seeking to advance academically, but as ambassadors of the proud nations we have left behind".

"When things get monotonous and overbearing - which I assure you they will from time to time - it's just a matter of packing a light bag and hitting the road. Travelling has opened our eyes to some of Europe's most breathtaking scenery and ancient cities. But you never travel alone […] though we like yourselves left many loved ones behind, we have made new ties, new families, new friends." And so Ms Sibanda once again warmly the new students to "a mini-United Nations".

Klaas Jan Beek Award 2007

The Klaas Jan Beek Award is granted annually to the best ITC MSc thesis, and the criteria applied in determining the winning work are stringent indeed. The thesis must have earned a grade of at least 80, with the overall grade for all course modules likewise being at least 80. There should have been no extension to the total MSc study period of 18 months and the thesis itself should have been completed in a period of six months. Moreover, the thesis should demonstrate proper use of state-of-the-art geo-information science and/or earth observation methods and have a well-defined scientific focus. Selected MSc students give a presentation on MSc Day, when a jury consisting of ITC senior scientists and PhD students draw up a short list for submission to the external members of the Scientific Council. Then a final decision is made.

Klaas Jan Beek Award

Opening Academic Year 2007-2008

Professor Klaas Jan Beek (left) and Mr Ephrem Kinfe Tesfamariam

Having clarified these aspects, it was the pleasant duty of Professor Molenaar to invite this year's winner, Mr Ephrem Kinfe Tesfamariam of Ethiopia, to come forward to receive the 2007 Award from Professor Klaas Jan Beek for his thesis entitled *Deriving rock surface roughness from 3D laser scan point cloud data*. As the applause died away, Professor Molenaar took the opportunity to explain in more detail the research carried out. "Ephrem conducted a study based on remote sensing to determine the roughness of rock joints. He developed a method using a new remote sensing technique called 3D terrestrial laser scanning. With a 3D laser scanner, you can measure the geometry of the rock slope with very high precision and with considerable detail from a large distance. Even small details such as roughness can be seen in the 3D laser scan data. The laser scanner generates what is called 'a 3D point cloud', which can consist of millions of data points. Ephrem was able to quantify the rock surface roughness by using these point cloud data. He translated the roughness to qualitative parameters that could be compared with conventional manual measurements."

No doubt on many an occasion Mr Tesfamariam had burnt the notorious midnight oil mentioned by Ms Sibanda of the Student Association Board, but the outcome too had been as she had predicted: success. As Professor Molenaar explained: "Ephrem demonstrated an ability to solve some very complex mathematical and data processing problems, while at the same time being able to verify the results through a thorough field campaign. Ephrem's supervisors were impressed by his independent and pragmatic approach, which resulted in an excellent piece of research."

The warm reception from the floor showed that the audience were likewise impressed, and no doubt many among the new students were already fired to achieve similar results.

ITC Research Award 2007

The Academic Board of ITC had decided that a yearly award should be given to the best scientific paper written by an ITC PhD student while he or she was enrolled as a graduate student at the Institute. This then was the first outing of the new award. Probably because of the short notice and the strict regulations applicable, only six nominations had been received. Of these, five papers written by four (first) authors were deemed eligible. One of the papers nominated had been written by a staff PhD candidate and, although accepted this time round, more stringent rules will apply in future. The three most important award criteria are scientific level, innovation and practical significance, and the jury that had deliberated on these aspects this year consisted of Professor Anne van der Veen, Professor Alfred Stein, Professor Victor Jetten and Mr Shi Pu (on behalf of the ITC graduate student community).

Professor Molenaar said that innovation had turned out to be the decisive factor in the difficult task of selecting a winner, and breaking new ground for future research of high societal importance had been rewarded. It may not always be possible to follow up on all the new leads stemming from new ideas and thus ensure that the published research is complete and free of loose ends. However, this means that opportunities are given to others to extend and tie up those ends. With this he invited Mr Wu Guofeng, as first author of the paper *Concurrent monitoring of vessels and water turbidity enhances the strength of evidence in remotely sensed dredging impact assessment,* to come forward and receive the

ITC Research Award

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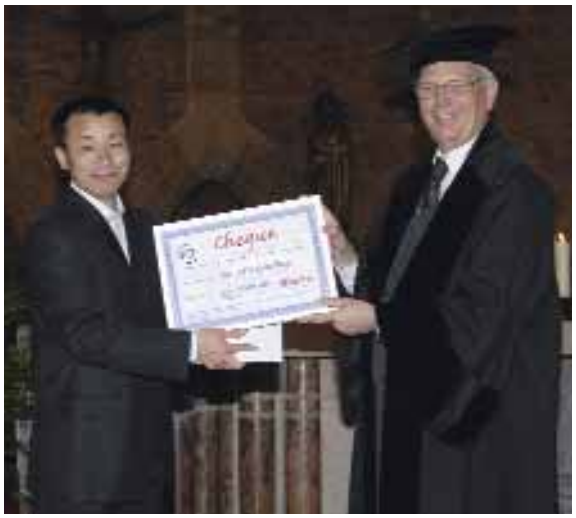
award. The paper has been published in the journal *Water Research* and the other contributing authors are Jan de Leeuw, Andrew Skidmore, Herbert Prins and Liu Yaolin.

Professor Molenaar went on to say that: "The jury is convinced that the paper on monitoring natural suspended sediment loads, together with human dredging activities, deserves the first ITC Research Award. It is a paper of high scientific quality; it is innovative and creative, and invites others to follow its path. It is considered to be of high societal relevance in the light of the controversy on the Three Gorges Dam project in the Yangtze River. The jury expresses its hope that this award will inspire other researchers to extend and follow up on this and other research themes, and expects many more nominations for next year's award."



Rector Martien Molenaar and Mr Wu Guofeng

Schermerhorn Lecture

Professor Salomon Kroonenberg

'Imaging the Earth: 10,000 years from now'

It is undeniable that Al Gore's film documentary *An Inconvenient Truth,* which hit cinema screens in 2006, brought the subject of global warming well and truly to the fore. Who could forget the striking poster of penguins ploughing their way through the desert? And the award of the prestigious Nobel Peace Prize also constituted a seal of approval. So, done and dusted, nothing more to be said? Well, actually, quite a lot.

Professor Kroonenberg takes a far more optimistic view of the situation: "The climate is almost constant, and yet we are afraid that a century from now it will be a degree warmer. The sea level is barely rising any more, yet we act as if it were life-threatening. We have become worriers, racked by a sense of guilt." In his lecture, he suggested that we were being rather short-sighted in our views and, instead of restricting our predictions to 2100, as is often the case in climate and environmental publications, we should look at the Earth 10,000 years from now, when we could be heading for a new Ice Age. "Perhaps in four hundred generations, the people may well appreciate all that carbon dioxide we're sending into the atmosphere." And when you think that in the Jurassic and Cretaceous periods there was 10 to 20 times as much CO2 in the atmosphere as there is now, it seems that nothing is new for the Earth, only for us.

As a geologist, Professor Kroonenberg is well accustomed to looking at extensive time frames, and he supplied a variety of statistics and graphs relating to the past 10,000 years to illustrate and support his arguments, including the infamous "hockey stick", which at the time of its conception severely dented opinions on the dangers of global warming. According to Professor Kroonenberg, instances in history graphically demonstrated the ability and flexibility of human beings, as well as birds, animals and vegetation, to respond to conditions and adapt, migrate and ultimately survive. Consequently, while he applauded efforts to conserve and preserve the Earth's resources, he did not feel the need to continually warn of an approaching apocalypse and the demise of humankind: "There are already enough who do that and usually, as the Earth has taught us, without justification. On the contrary, it is my contention that humans can adjust well to warmer or colder climates, or higher or lower sea levels."

So what general lessons may be learnt here? We should not measure nature only at the human scale, but also at the scale of nature itself. As climate always changes - even without human interference - it is better for human beings to adapt themselves, instead

Schermerhorn Lecture

Opening Academic Year 2007-2008

Full professor of geology at the Department of Geotechnology, Delft University of Technology, Professor Salomon Kroonenberg is currently leading a team of earth scientists involved in quantitative geological modelling of the subsurface. He sees himself as a generalist, with broad experience in various fields of earth sciences, including metamorphic petrology, volcanology, remote sensing, geomorphology, Quaternary geology, soil science, geochemistry, and sedimentology in terrains ranging in age from Precambrian to Quaternary. His present research interest focuses on the effect of sea-level changes on sedimentary systems, notably in the Caspian area, because sea-level changes in the Caspian take place at a rate one hundred times as fast as that in the oceans. The Delft team uses these data to validate numerical simulation models of coastal response to global sea-level change and to improve understanding of the 3D sedimentary architecture of oil, gas and groundwater reservoirs in the subsurface. On a more general level, Professor Kroonenberg is deeply interested in the strain relation between humankind and geological time.

Salomon Kroonenberg graduated in physical geography at the University of Amsterdam and obtained his PhD at the same university in 1976, the title of his dissertation being Amphibolite-Facies and Granulite-Facies Metamorphism in the Coeroeni-Lucie Area, Southwestern Surinam. He was employed at the Geological and Mining Service of Suriname from 1972 to 1978, at the University College of Swaziland from 1978 to 1979, and at the Centro Interamericano de Fotointerpretación in Bogota, Colombia, from 1979 to 1982. He was full professor of geology and mineralogy at Wageningen Agricultural University from 1982 to 1996, after which he was appointed to his present position

of pretending that humankind can control climate to its liking. And ITC has a role to play: by providing time series of past change from imagery and proxies for longer time scales; by real-time monitoring of earth processes (sea level, el Niño, coasts, floods, uplift); and by producing model scenarios for the future, based on past and real-time geodata. After all, when you know the long term, you can also make better decisions for the short term.

With enthusiasm and humour, the first lecture of the new academic year delivered serious messages seen with a fresh eye. Professor Kroonberg sent his listeners, and particularly the newly arrived student cohort, on their way not only aware of the value of the academic discipline of critical observation but also with sufficient ammunition to fuel debate for the entire year ahead. And whoever is scheduled to present the second lecture in the coming weeks faces quite a challenge!

Conclusion

A somewhat chill wind whipped across the square as guests, visitors, students and staff, well minded to accept the invitation of Professor Molenaar, charted a course for the reception at the Twentse Schouwburg. It gave pause for thought. Perhaps the next Ice Age cometh already? Still, for the moment at least, the warming properties of the refreshments on offer would drive this thought into the background.

Professor Salomon Kroonenberg

Highlights
Student introduction week 20

Dutch traffic: theory and learning how to cycle

Registration

Twente excursion

007

Opening ceremony of the academic year 2007-2008

Welcome and city tour hosted by the Municipality of Enschede

Dinner in the ITC restaurant.
ITC staff help to prepare and serve a Dutch meal

ITC International Hotel: Coping with Changing Requirements

IIH Management hotel@itc.nl

Ever since its establishment, ITC has made special efforts to provide proper accommodation for its students so that they can spend their time on their studies rather than on organising their own housing (see also ITC News 2005-3)

The ITC International Hotel (IIH), the subsidiary fully owned by ITC, has been charged with the task of ensuring that students are properly served. With growing student numbers, increased mobility in terms of arrival and departure dates, and greater variety in individual requirements, this is no easy task.

Since 1972, the IIH (formerly known as DISH) has accommodated the students on the first 10 floors of a 14-floor hotel on Boulevard 1945, with a total of some 237 single rooms (with communal kitchens) and 13 apartments. Because of growing student numbers at the end of the 1980s, the IIH had to rent the *Stadsweide* apartment block across the street from the hotel, with 54 two-room, three-room and four-room apartments. In addition, the IIH rented some 50 rooms spread across Enschede, bringing the total in the mid-1990s to some 370 rooms and apartments, with a capacity for 440 people.

The ITC Hotel anno 2007 (picture © Gerard Kusters)

In 2006, the 50 or so rooms spread across Enschede were replaced by a single apartment block with 100 brand-new apartments. This was located in Dr Benthemstraat (very convenient for the ITC building) and known as the *Plein van Arke*.

Plein van Arke

To ensure the long-term use of the Stadsweide apartment block for the growing PhD community and their families, ITC acquired these premises in June 2007, after having rented them for almost 20 years. This means the necessary renovations can now be started, and these will be carried out in the course of 2007 and 2008.

Stadsweide

Simultaneously, agreement has been reached to transfer two more floors (floors 11 and 12) of the hotel block on Boulevard 1945 to the IIH. Urgent renovations to the rooms are currently being carried out and four new communal kitchens are being constructed, ready for the start of the academic year in September 2007.

These changes have brought the total current hotel accommodation to 473 rooms and apartments, with the capacity to accommodate 543 people. With these measures, the IIH hopes, as far as numbers are concerned, to have ensured accommodation for the student and PhD community for the longer term.

However, adjustments are not only required in terms of numbers of rooms and apartments. Unlike in the past when students used to arrive in large groups at one or two specific periods in a calendar year, the increasing variety of ITC's training and education has resulted in increasing mobility throughout the year. This in turn has meant the need to upgrade reservation capacity, extend reception opening hours to 24 hours a day, and upgrade cleaning and upkeep to deal with irregular occupation.

We have also noticed an increase in individual requirements. An internet café was installed some years ago to accommodate the wish to be online 24 hours a day, seven days a week. Since then, an increasing number of students have been bringing their own personal computer equipment, which has led the IIH management to install (free) internet connections in all rooms and apartments.

To deal with all these changes, a dedicated crew is required. The IIH staff consists of a small committed team that knows how to service a truly international group of guests. Although the front office (reception) personnel are best known to current and former ITC students, the back office personnel make sure that the facilities are serviced and maintained.

All the staff of the ITC International Hotel in the hotel lobby

Hi to everyone,

When I was asked to write something about my work at the hotel, one of my first questions was how much space was available. After all, it's not easy to describe in just a few sentences what our work at the ITC hotel reception entails.

We, the IIH reception team (Yvet, Ruben, Margot, Wietske and Saskia), all do our work with dedication and have our own ways of assisting the guests during their stay - each of us with our own skills and personality. We do have one thing in common though: we want to offer the guests *a home away from home*. That is the main goal of the IIH reception, the guiding principle we follow during their stay.

Over the years I have worked at the ITC hotel, innumerable faces have passed through the doors - many I will remember always. I have met nice, interesting, sweet, fascinating guests from all over the world. I have learned a lot about their cultures, about their habits, and about them. I have also learned (and am still learning) how to welcome people in their own language. Besides all that, I have learned a lot about myself.

Being a hotel receptionist is a job that demands versatility. In between the usual reception work, such as checking in, answering the phone, taking messages and packages, doing memo and mail work, and selling coins for washing and drying machines, we do our best to translate cooking recipes, explain technical manuals, arrange Schiphol taxis and upgrade mobile phones - as well as clarify certain peculiarities of the Dutch language and, come December, provide a potted history of *Sinterklaas*. At the reception, we also listen to happy stories from a proud father, telling us there is a new arrival in the family, as well as sad or funny stories that people want to share. Sometimes we talk to guests who are feeling homesick - those who have been looking sad for days and need to chat a bit to see the brighter side of life once again. You learn to know and recognise the behaviour of guests who have been staying at the hotel for some time. You recognise the sporty guest, who is always full of energy; you recognise the silent guest or the "dreamer"; or the curious guest who travels all over Europe and comes back with lots of stories. You learn how to approach each guest in a different way. And you're alert to when needed - especially at thesis time, when faces become thinner from hard work and staying late at ITC starts again. When the pressure is on, you can sense the stress among those who are struggling. I remember once that in reception we had a bag of 30 kiwis bought at the market (vitamin boost) to give to students who were so loaded down with work that they were unable to cook, and simply ignored the fact that they had to eat. The only thing the reception could do was to back them up with a kiwi. It's not about kiwi fruit; it's just that we want everyone to feel that, whatever the problem, if the reception can do something to help, we will.

I have often been told by guests who were leaving after 18 months that new students would come and take their place and that we would forget the "old" faces. But that's not how it goes. You get to know the guests and their own individual ways of expressing themselves. To me, no one is replaceable.

People have asked me whether this job hasn't become boring after so long. Wouldn't I like to do something different? I never get bored in my job. To have the whole world under one roof, to meet and be able to talk with so many nationalities and learn about their cultures ... taken all together, this makes me very proud of my job and I love what I do. It is not simply paperwork; it's mainly "people work" - and that can never be boring. The biggest compliment people can pay is to say they feel at home. And when they leave the hotel, we want them to leave with smiles on their faces. Then we are satisfied.

Hope everyone is doing very well, and wish you all the best,

Saskia,
Receptionist ITC International Hotel

project news

Workshop Report: Design Methods for Sustainable SDI 2007

Rolf de By deby@itc.nl

Under the above heading, the ITC research group on SDI technology organised a workshop at the Grand Imperial Hotel in Kampala, Uganda, on 12 September. Some 25 participants from various East African (mostly Ugandan) organisations convened, as well as other interested parties from further afield, and they discussed their experiences in building SDI nodes. The list of participants revealed a broad interest from government agencies, academia and the private sector.

It was a two-part workshop. The first part was devoted to reports by invited speakers on their experience at home in building systems that one day would become nodes in the national SDI. Bernard Muhwezi from the Uganda Bureau of Statistics provided an overview of current activities in his country; Emanuele Gennai from ESRI Europe shared with us ESRI's philosophy of constructing SDI nodes; and Andreas Wytzisk from the Germany company con terra GmbH, provided a look into a highly interesting and recently finalised project for the EU within the context of INSPIRE. It was clear from the discussions that a true diversity of techniques and methods is currently being applied to get SDI systems up and running - and with varying degrees of success, whether measured in completeness, correctness or user acceptance.

In the second part of the workshop, after well-deserved refreshments, we entered into a plenary discussion on matters of SDI design approaches, specifically related to the methods and techniques but also with a strong emphasis on user orientation. With regard to the last point, we agreed that our field is still too map- and product-oriented and inadequately addresses the direct information needs of organisations and individuals. We also agreed that no standardisation is yet in place concerning design and implementation approaches, and that this would help tremendously in building up the geo-IT capacity so urgently needed in East Africa (as it is elsewhere). Design standards should, among other things, include modelling languages for information content and service definitions, and open standards that can be supported by both proprietary and open software platforms. We also agreed that template documentation of properly designed systems should become available to stimulate learning and promote development.

Late in the workshop we discussed how a pilot showcase for SDI could be developed in Uganda under a public/private partnership, and what would be the critical success characteristics to make such a showcase generate wider interest in SDI development. This was one of the most valuable discussions of the whole workshop, and a good lead to pursue.

At that point the hotel management 'forced' us to move poolside for cold drinks and warm snacks. However, this interruption to the debate proved to be of a purely temporary nature.

For more information, you can visit the workshop's website (www.itc.nl/sdidm07) or contact Rolf de By (deby@itc.nl) or Lyande Eelderink (eelderink@itc.nl).

ITC Advisory Services: The Beskyd Railway Tunnel

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ITC and Witteveen + Bos Consultants have recently executed a feasibility study on upgrading the Beskyd railway tunnel in the Ukraine (Photo 1). This tunnel is located in the western region of the Ukraine, and forms part of the important railway line between East and West Europe (Figure 1).

Four years ago, Ukrainian Railways received a loan from the European Bank for Reconstruction and Development (EBRD) to upgrade this railway connection. Obviously, little interest in East-West connections existed in the days of the Iron Curtain, but since the changes in the early 1990s economic cooperation between East and West has been booming and as a consequence traffic between East and West has also been increasing.

Beskyd Tunnel

A series of railway connections exist between Eastern and Western Europe. One of the main lines is from Moscow via Kiev and Lviv to Budapest, Prague and Vienna. This line crosses the Carpathian Mountains in the west of the Ukraine, and at one of the highest passes a series of tunnels cut through the mountains. Trains pass about every 10 minutes and are very long: passenger trains generally have 30 to 40 carriages, while freight trains consist of a hundred or more wagons. Three or four large locomotives pulling and two pushing are necessary to get the trains through the mountains. The 1.7 km Beskyd tunnel, located close to a village of the same name, is one of the longest tunnels on the line. It is a single-track tunnel that was built in the late 1800s when the area was part of the Austrian-Hungarian empire. The tunnel has been upgraded and repaired a couple of times, but is presently in poor condition. Trains passing through can reach a maximum speed of only 20 km an hour. Furthermore, the tunnel is the only single-track stretch of the whole line. In winter, the continuous influx of water in the tunnel freezes, and the ice has to be removed daily to keep the line open. Because of the poor condition and the fact that the tunnel has only one track, the tunnel forms a serious bottleneck in the railway link between Eastern and Western Europe. To remove this bottleneck, it is necessary to either improve the existing tunnel by widening it or create a new double-track tunnel parallel to the old one. An engineering geological study was vital before embarking on construction.

Photo1. Entrance Beskyd tunnel

Figure 1. Location of Beskyd tunnel

Beauty Contest

Ukraine Railways and the ERBD organised a so-called "beauty" contest tender for the engineering geological study and invited European consulting companies to tender. A beauty contest tender means that the proposals are evaluated primarily on quality and only secondly on price. ITC, in a joint venture with Witteveen + Bos Consultants, beat off all rivals, including large consulting and railway companies from Austria, Germany and the United Kingdom.

Engineering Geological and Geotechnical Survey

The first stage of the work consisted of engineering geological mapping of the area and an inspection of the existing tunnel. All exposures of rock and soil were investigated in a two-week campaign by staff from ITC/W+B and the Ukrainian railway company UZ. Each exposure was characterised according to type of rock or soil, discontinuity patterns, compressive and shear strength properties, and all other features that are relevant when designing a new or enlarged tunnel. Based on this survey, a detailed (1:10,000 scale) engineering geological map and cross sections were made. Also the locations were selected for the subsequent site investigations for the second stage of the project. This second stage consisted of an underground campaign of four boreholes drilled to a maximum depth of 250 m and an electrical resistivity survey. The cores of the boreholes were described in detail, and pumping tests in the boreholes established groundwater levels and the permeability of the rocks. Laboratory tests were carried out on selected samples from the boreholes.

Results

The rocks in the tunnel area consist of so-called flysch deposits, which are strongly deformed and folded and include some important faults (see Figure 2). Flysch deposits are repeating sequences of material, starting with coarse sandstone, becoming finer sandstone and then siltstone, and ending with shale. One sequence has an approximate thickness of 1 to 20 m. This repeating sequence is expected to be a major problem in designing a new tunnel (Photo 2 and Figure 3). The sandstones are strong and highly permeable, while the shale is weak and impermeable. Hence, a tunnel will have to go through water-bearing permeable sandstones, with a water head up to the surface to a maximum of 250 m. The weak shale will squeeze when excavated, allowing the release of stress on the sandstone and making it possible that sandstone blocks will fall from the roof and walls in the newly excavated tunnel. Excavation methods and the design of a new tunnel or the widening of the existing tunnel will have to take this into account. Suitable excavation methods will have to use a shield, sophisticated forepoling techniques, or a tunnel-boring machine.

As a result of the survey, different design scenarios can be drafted for the new tunnel or for upgrading the existing Beskyd tunnel. It will depend on the contractors as to which option is going to be the most economical. This is going to be decided in the following phase of the project. Ukraine Railways were very satisfied with the work done and awarded the ITC and W+B project leaders the Order of Merit as a token of appreciation for the work of the whole project crew (see Photo 3).

Tunnels in Developing Countries

Although this was not a typical ITC project, it was very beneficial for the Institute. Obviously, the staff involved gained valuable consulting experience that will help in attracting additional advisory and research projects. Indirectly, it will also increase the quality of the education, since the experience can be transferred to the students.

Transport routes such as roads and railways in tunnels are an environmentally friendly way of arranging transport. In addition, sustainability is very high. Anyone who has visited developing countries knows of roads in mountainous areas that are flushed away each rainy season. Apart from a devastating effect on the environment, the disruption of transport is also very bad for economic development. Initially, transport in a tunnel requires high investment, but in the long run it is far more beneficial for a developing country because it ensures long-term uninterrupted functioning without much maintenance.

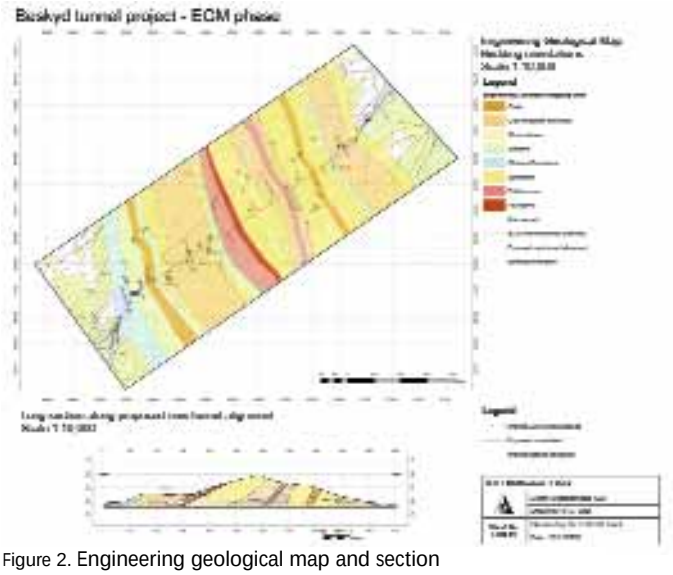

Figure 2. Engineering geological map and section

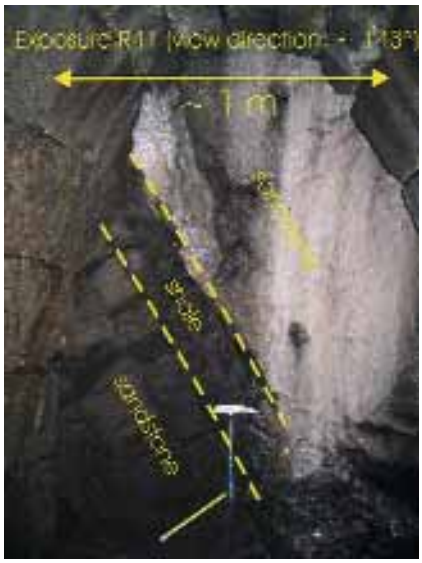

Photo 2. Exposure of rock in the existing Beskyd tunnel

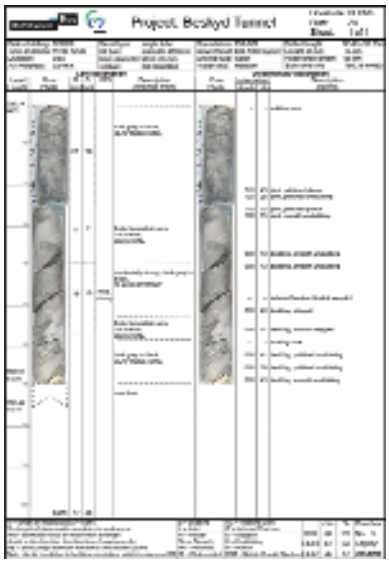

Figure 3. Example of borehole log

Photo 3. The Order of Merit of the Ukraine Railways as a token of appreciation for the excellent work performed by the whole project crew

partnership news

ITC/Ardhi University Staff Exchange Programme

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In September 2004, ITC partnered our institution, Ardhi University (formerly known as UCLAS), based in Dar es Salaam, Tanzania, to undertake joint training in the area of geo-information science. The partnership culminated in the implementation of the Geoinformatics Diploma course (GFM.4) at Ardhi University and the course is run jointly by ITC and Ardhi University. The course started with 11 participants, but that number had increased to 27 in September 2007. As in the ITC GFM.4 course, participants come from different African countries, such as Botswana, Zambia, Democratic Republic of the Congo, Namibia and Tanzania itself.

Through this cooperation, ITC and Ardhi University have established a staff exchange programme, whereby ITC staff come to the university to teach in some modules and university staff visit ITC to participate in supervising the individual final assignments of the GFM.4 course participants. To support the partnership, university staff visited ITC in 2006, and under the staff exchange programme Adelina Malunda and I from Ardhi University visited the Institute as guest lecturers from 21 August to 12 October 2007. During the staff exchange programme, we participated in supervising GFM.4 individual final assignments. The exchange also provided us with a platform to ensure that the GFM.4 course offered at Ardhi University conforms to the standard of ITC education, particularly in terms of content and delivery system.

We supervised a total of nine GFM.4 course participants out of 24 in the GIS and cartography specialisation. Photo 1 shows the mid-term assessment in progress. Each student was guided by two supervisors, one from ITC and one from Ardhi University. The final project requires participants to use the skills acquired and data from their own countries to carry out analysis and visualization and come up with some useful output that can be applied in their daily working activities back home.

During our stay at ITC, not only did we have the chance to interact with staff in the Department of Geo-information Processing, but we also attended some departmental meetings, where we were always encouraged to contribute. Furthermore, we attended the ESRI User Conference held in Rotterdam in September 2007, where we discovered many possibilities for using ESRI software to analyse geographical data and create different types of maps. Another important session at this conference was the exhibition of state-of-art equipment (see Photo 2). Importantly, we gained more insights into the functionality of ArcGIS version 9.2, which is currently used in ITC for geographical data analysis and the creation of maps.

We also learnt that ITC had made some changes to GFM.4 modules and software to make the course better organised and more useful, and we had some meetings with departmental staff involved in the course to enable us to adopt some of the changes at Ardhi University. Finally, we were

Photo 1: GFM.4 student under supervision in August 2007 (left: Mr Willy Cock from ITC; standing: Ms Christine Mshana from Ardhi University, Dar es Salaam,Tanzania)

Photo 2: Ardhi University staff at the ESRI User Conference Exhibition, Rotterdam, in September 2007 (left to right: Ms Adelina Malunda and Ms Christine Mshana)

Photo 3: GFM.4 graduation ceremony in October 2007 (left to right: Ms Adelina Malunda from Ardhi University, Ms Doris Offei, GFM.4 graduate from Ghana, and Ms Christine Mshana from Ardhi University)

very happy to see all the participants that we had supervised awarded their diplomas. Photo 3 shows a very happy team of staff from ITC's Department of Geo-information Processing and Ardhi University with one of the graduates.

It was indeed a good experience and of course it will help us to maintain the ITC educational standard. We would like to thank ITC for giving us this opportunity. It has not only encouraged but also motivated us to do better in our own organisation, particularly when it comes to teaching the GFM.4 Diploma course. We would like to extend our gratitude to the management of Ardhi University for allowing us to participate in the mission. It is our hope that the cooperation between ITC and Ardhi University will continue to bring GIS and mapping technology to Tanzania, as well as to other developing countries in Africa.

UCLAS Becomes Ardhi University

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ITC and the University College of Lands and Architectural Studies (UCLAS) in Dar es Salaam, Tanzania, have been working together for a very long time. This cooperation began in the late '80s and early '90s on a number of research projects. Several years later, the EISCAP project led to intensification of the cooperation. EISCAP aimed at establishing short and tailor-made training programmes for the Eastern African region on the use of GIS and remote sensing for a wide range of applications.

On 25 September the fourth edition of the Diploma course in Geoinformatics got underway, with 27 participants from countries in Eastern and Southern Africa

Recently the Tanzanian Government officially approved the charter establishing UCLAS as an independent university bearing the name Ardhi University

Since 2004, ITC and UCLAS have jointly embarked on implementing the Diploma course Geoinformatics (GFM.4). The joint course in Dar es Salaam, which is identical to the GFM.4 course offered at ITC, is run completely in Dar es Salaam and is taught by a combination of staff from UCLAS and ITC. The fourth edition of the course started on 25 September, with 27 participants drawn from countries in Eastern and Southern Africa.

In the earlier editions, ITC staff were regularly involved in teaching the GFM.4 course in Dar es Salaam. However, this input has decreased over time and now most of the classes are taught by Tanzanian staff. Within the framework of this cooperation, Tanzanian staff also come to ITC to supervise the individual final assignments of the GFM.4 students in the Netherlands. Last year, Bertha Sambo and Francis Mwakapuja were at ITC as visiting lecturers, and this year Adelina Malunda and Christine Mshana supported the ITC staff during the final assignments. (In a separate article on page 18 of this issue, you can read about Christine's experiences.)

Originally established as the training branch of the Ministry of Lands and Human Settlement Development in Tanzania, UCLAS (then called the Ardhi Institute) became a constituent college of the University of Dar es Salaam a number of years ago. Recently, however, the Tanzanian government officially approved the charter establishing UCLAS as an independent university under the name of Ardhi University. We would like to congratulate all staff and students of Ardhi University on this important feat, and wish the university a long and fruitful scientific future.

On 25 September of this year, ITC and Ardhi University signed a new Memorandum of Understanding, ensuring that in the years ahead the long cooperation we have enjoyed will not only continue but also expand and intensify.

education news

Training Course: Use of GIS and Remote Sensing in Disaster Management

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On 27 August 2007, ITC commenced the first regional training course Use of GIS and Remote Sensing in Disaster Management, which was conducted together with the Asian Disaster Preparedness Centre (ADPC) and the Geoinformatics Center of the Asian Institute of Technology (GIC-AIT) in Bangkok, Thailand.

The course was in response to the request from ADPC's regular participants in disaster management courses for the inclusion of geoinformatics tools and methods. The new course was targeted specifically at disaster management professionals working in local or national government, NGOs or private sector institutions who require understanding of the use of spatial information in disaster management. The range of backgrounds, interests and job descriptions in such a diverse group is naturally immense, as is the breadth of material relevant to such training. Interest in the course was keen, and a total of 21 individuals from 17 countries, including countries in Africa and Europe, participated. This made it, in effect, a global rather than a regional training course, and the consequent cultural and professional diversity added substantially to its appeal. The benefit of such diversity and collaboration was also stressed during the opening ceremony (see photos), and fervent discussions among participants were still taking place as they enjoyed dinner during a riverboat cruise at the end of the course.

With the utility of geoinformatics for disaster risk reduction being rooted in the spatial nature of all aspects of disasters (e.g. hazard, risk and vulnerability), a large set of tools can be deployed in disaster management. Superficially, these could be reduced to GIS and remote sensing. In reality, however, the arsenal also includes GPS-based tools, database management and visualisation, community-based methods, and basic but critical aspects of cartography, geodesy and statistics. After all, comprehensive disaster risk reduction within a geoinformatics framework requires current and reference image data integrated, modelled and analysed in a GIS environment, and usually supported by ground-based information. The multitude of stakeholders, including governmental units, the military, local, national and international NGOs, and other experts, particularly in a post-disaster situation, dictates that effectiveness is achievable only when data and results are shared and mutually understood. Hence knowledge of spatial data infrastructure, data standards and cartographic conventions assumes a level of importance on a par with image processing or GIS modelling.

Only parts of such knowledge can be packaged into a two-week training event - although the course did include comprehensive introductions to both GIS and remote sensing, background periods on basic cartographic and geodetic aspects, database management and web-based data sharing, participatory GIS methods, and extensive sections on how to apply and integrate diverse geoinformatics tools to assess different hazards, risk, vulnerability or damage. This was organised in a course broadly balanced between theory and practice, and supported by group discussions.

Norman Kerle opening the course, with words of welcome from Falak Nawaz, Sudip Kumar Rakshit (AIT vice-president of research) and Boon Tiong Tay (ADPC director of finance and evaluation)

Group photo following the opening ceremony

The course was organised by the ITC-UNU School for Disaster Geo-Information Management together with ADPC and GIC-AIT, with the aim making it an annual event. A total of 11 resource persons, led by Norman Kerle from ITC, Falak Nawaz from ADPC and Manzul Hazarika from GIC-AIT, were involved in the teaching, and the course format introduced a range of perspectives. Further ITC contributions came from Barend Köbben on database management, web-based mapping and visualisation, and from Mike McCall on participatory GIS.

The course showed that there is a substantial training need for geoinformatics skills within the growing disaster management community, and that in Asia this need can be well met by ITC's growing ties with its partners in Thailand. The next course is tentatively scheduled for May 2008, and will be duly announced on the ITC DGIM pages, as well as on the ADPC and AIT websites.

For more information on course content, and for photos of the event, see http://www.adpc.net/v2007/TRG/GALLERY/2007/GRSDM-1/GRSDM-1.asp or http://www.itc.nl/education/courses/course_descriptions/C07-ESA-TM-11.aspx, or contact the author (kerle@itc.nl).

Successful Refresher Course on Urban Environmental Planning and Management at Ardhi University, Dar es Salaam

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A 10-day refresher course on Urban Environmental Planning and Management was held at Ardhi University, Dar es Salaam, Tanzania, from 2 to 14 September 2007. The course brought together for the first time four organisations with knowledge and expertise in different aspects of environmental planning and management, environmental management information systems, and recent developments in GIS and remote sensing, as well as with practical experience in numerous SCP projects around the region. Course coordination and execution was undertaken by Dr Richard Sliuzas and Ms Monica Kuffer of ITC; Dr A. Kyessi of Ardhi University, Tanzania; Ms Karin Buhren, SCP, UN-Habitat, Kenya; and Dr H. Sengendo of Makerere University, Uganda.

In total 26 participants from Tanzania, Kenya, Uganda, Ethiopia, Ghana, Lesotho, Zimbabwe and Zambia completed the course. In addition to 20 Dutch alumni sponsored by NUFFIC (including some who had completed their studies in the Netherlands in 1985), SCP sponsored four staff from SCP projects in Lesotho, Zambia and Uganda, and two staff members from Ardhi University also attended.

The main topics covered in the course were urban planning approaches, the environmental planning and management process, spatial data and environmental management information systems, and using environmental management information systems for planning support. The content included theoretical and practical approaches to urban environmental planning and management, with the focus mainly on developing countries, particularly in the Sub-Saharan region. In the first week, the participants were exposed to approaches to urban environmental planning and management, as well as to emerging trends in the subject. Participants were given the opportunity to present country-based case studies. This was very instructive and offered new and unique ways of dealing with emerging urban planning problems. The second week was devoted mainly to the application of spatial multicriteria evaluation tools for suitability analysis of human settlements. Spatial data

Group photograph of participants, staff and officials of UN-HABITAT (co-sponsor) and Ardhi University (host)

Annet Tumwine (Uganda) enjoying the case study using ILWIS

analysis, modelling and visualisation were carried out using ILWIS software.

Because of the limited capacity of agencies, governments and even urban managers, fast-growing urban areas in Africa and developing countries in general are facing challenges in controlling and managing growth. This situation has led to the emergence of several environmental issues, for example:

- informal settlement or slum growth, especially in hazardous areas such as river valleys and flood-prone zones
- urban environmental degradation arising from poor waste management and land use change
- transport-related problems such as congestion.

The course was therefore timely, as it enabled participants to improve their skills and be exposed to ideas and methods that would be useful in their work as urban managers. The need to improve the sustainability of urban development and to incorporate environmental concerns as a primary focus within urban planning and management is widely recognised.

The urban environmental planning and management approach as promoted by the UN-HABITAT Sustainable Cities Programme has been designed and tested in a variety of cities, including many in Sub-Saharan Africa. The collection and utilisation of spatial data is a fundamental aspect of urban environmental planning and management. The so-called environmental information system is spatially based, and built on a GIS platform. It provides information that can increase the effectiveness of both strategic urban planning and management and local action planning.

While most of the alumni found that the topics relating to SCP and environmental management information systems refreshed the knowledge and experience gained during their earlier studies at ITC, the topic on multicriteria analysis techniques using ILWIS proved a real eye-opener.

During a one-day excursion to several informal settlements and new development areas in Dar es Salaam, the participants were able to gain practical experience of environmental planning and management project activities. The city of Dar es Salaam has made good progress in urban planning and the participants were able to acquire first-hand experience of how communities have been involved in settlement upgrading. The city planners have been able to use GIS tools to define areas suitable for settlement and future development. Dar es Salaam was therefore a good location for the course, and we the participants picked up more than a grain of knowledge to take back home and use to improve the urban planning process in our own cities.

The course concentrated not only on the planning and use of spatial multicriteria evaluation tools, but also on social and educational aspects. The programme included a one-day excursion to the historic city of Bagamoyo to allow participants to see efforts to conserve important cultural and historical aspects of the city for future generations. Bagamoyo is famous as a shipping point during the slave trade. In its vicinity are the ruins of Kaole, which serves as a good example of how environmental changes can undermine the sustainability of human settlements. The decline of Kaole has been attributed to such causes as the silting up of the estuary, the expansion of the mangroves, and the increased salinity of the groundwater.

During the closing ceremony the participants received a certificate of attendance, a bundle of materials for reference purposes, and accompanying ILWIS software. On behalf of all participants, a presentation was made to thank the course coordinators and sponsors, as well as the supporting staff who had facilitated many of the course events during the two weeks.

That the course was successful emerged from the course evaluation. Participants expressed the view that the knowledge gained during the course would be of great benefit to their organisations back home - although they observed that incorporating participatory approaches in the traditional planning systems would be a considerable challenge. It became evident that better information has the potential to contribute to better planning and decision making. The challenge, therefore, is for all participants to make an effort to use better tools and accurate information and thus arrive at better decisions geared towards developing sustainable cities in Africa.

We look forward to similar courses organised for alumni, as these would go a long way to helping us to become better managers of our urban areas. Thank you ITC and all sponsors for bringing alumni together and for helping to build stronger ties and links across the continent.

Participants often worked in groups during the course

Dr Kyessi (Ardhi University) explaining the issues of informal settlement in hazardous areas during the site visit to Hanna Nassif

events

2nd Geospatial Technology Exhibition in Indonesia

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In the aftermath of a number of recent natural disasters, the realisation hit home in Indonesia that information system technology can provide powerful tools for both pre-disaster activities (e.g. disaster risk studies, designing evacuation routes, determining the best sites for refuges) and post-disaster activities (e.g. damage and need assessment, help distribution, rehabilitation). Likewise, spatial information technology is playing an increasing role in the spatial planning activities of local government agencies.

Embracing this development, the National Coordinating Agency for Surveys and Mapping of Indonesia (BAKOSURTANAL) organised the second edition of the Geospatial Technology Exhibition. This exhibition was held in Jakarta from 29 August to 1 September.

Bearing the title "Geo-information for a better future", the event illustrated the power of integrating spatial data, GIS and remote sensing technology with information and communication technology to equip and prepare us for a better future

The Indonesian Alumni Association manned the ITC booth during the event, welcoming visitors to the exhibition and sharing information and experiences about life and study at ITC

ESRI East Africa User Conference

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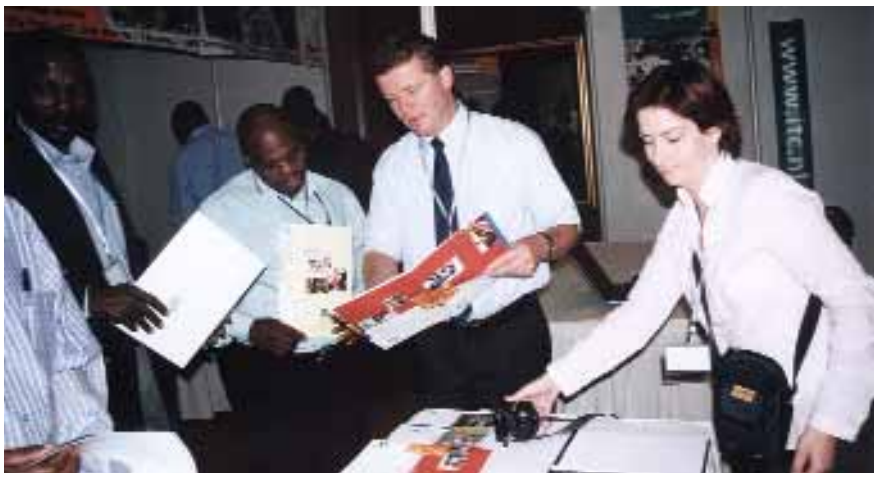
Following the success of the first edition of the ESRI Eastern Africa User Conference held in Nairobi, Kenya, last year, the conference is now set to become an annual event. This year's edition took place in Kampala, Uganda, on 13 and 14 September.

The local organisation of the conference was in the hands of ITC alumnus Mr Amadra Ori-Okido, who runs his own GIS company (Geo-Information Communication) and is the ESRI country representative for Uganda. The conference brought together more than 150 GIS practitioners from the Eastern African region to present their experiences and findings and to exchange ideas. As was the case last year, ITC was represented during the conference exhibition.

Prior to the start of the conference, a workshop was organised by ITC's Rolf de By and Lyande Eelderink under the title "Spatial data infrastructure: developing sustainable systems". During the workshop, discussions focused on establishing a collaborative network of agencies and organisations to determine a functioning and sustainable design for SDI (see article on page 15 of this issue).



ITC project officers Tom Loran and Lyande Eelderink at the conference exhibition

ITC at International Remote Sensing Meeting in Argentina

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ITC was present at the XII Congress of the Spanish Remote Sensing Association, which was held in Mar del Plata, Argentina, from 19 to 21 September 2007. This was the first time this annual congress had been held outside Spain. The chosen country was Argentina (with strong historical, social and cultural ties with Spain); the venue was provided by the beautiful city of Mar del Plata, located on the shores of the South Atlantic Ocean; and the theme was "Remote sensing: towards a better understanding of global and regional dynamics".

The event took place at the Sheraton Hotel, Mar del Plata, where two floors were devoted to congress activities, conferences, and exhibitions of services and products offered by government, industry and academia.

With more than 300 participants and delegates from Spain, Argentina, Australia, Chile, Brazil, Uruguay, Mexico, Colombia and Ecuador, the congress provided a unique opportunity for the Spanish-speaking geosciences community to share recent developments and become acquainted with current trends in research and education in the field of remote sensing in Spain, Argentina and the rest of Latin America.

Two people from ITC attended this international congress: Gabriel Parodi from the Department of Water Resources and Sebastian Ludueña (WREM.2 alumnus, graduated in 2006), ITC's representative in Argentina. During the three-day event, brochures and promotional materials were distributed to congress participants, and both ITC representatives were pleased to respond to the many enquiries, which came mainly from advanced students and mid-career professionals who were keen to know about the current ITC portfolio of research and postgraduate education activities.

The congress was held at the Sheraton Hotel in Mar del Plata, Argentina

Gabriel Parodi (left) and Sebastian Ludueña

Exhibition floor

Gabriel Parodi and Sebastian Ludueña answering questions from congress participants interested in ITC's activities

ITC Students Ranked First and Second in Thesis Contest World Habitat Day 2007

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UN Habitat has designated the first Monday of October as World Habitat Day, a day to reflect on the state of human settlement and everyone's basic right to adequate shelter. This year World Habitat Day 2007 was organised by the Dutch Ministry of Foreign Affairs, the Dutch Ministry of Housing, Spatial Planning & the Environment, and the city of The Hague. The occasion was marked by an international conference on the World Habitat Day theme "A safe city is a just city".

The conference, which was held on 1 and 2 October, was attended by a number of distinguished visitors, such as Anna Tibaijuka, executive director of UN-Habitat; Lindiwe Sisulu, minister of housing of the Republic of South Africa; Bert Koenders, Dutch minister for development cooperation; Ella Vogelaar, Dutch minister for

housing, communities and integration; and Wim Deetman, mayor of The Hague.

Within the framework of this conference, a thesis contest was organised. Students in the last phase of their studies had been encouraged to enter. The thesis had to be relevant to the theme of World Habitat Day 2007, with a focus on cities, development, stability or reconstruction. At the end of the first day of the conference, Jan Pronk (former Dutch minister for development cooperation), chair of World Habitat Day 2007 and chair of the jury, announced the contest winners, and the ITC staff present were delighted to hear that two ITC alumni from the Urban Planning and Land Administration course had been ranked first and second.

First prize (€ 250) was awarded to Mr Emmanuel Ooko Midheme from Kenya (UPLA 2005-2007) for his thesis entitled *State vs community-led land tenure regularization in Tanzania: the case of Dar es Salam City*. The jury was of the opinion that this work clearly described different approaches to land regularisation. The thesis (supervised by ITC staff Johan de Meijere and Richard Sliuzas) identified some intrinsic weaknesses in the original set-up of new state-led regularisation measures in Tanzania, and made a clear plea for community-led regularisation. In the assessment of the jury, the "thesis was well written, and sometimes even eloquently so".

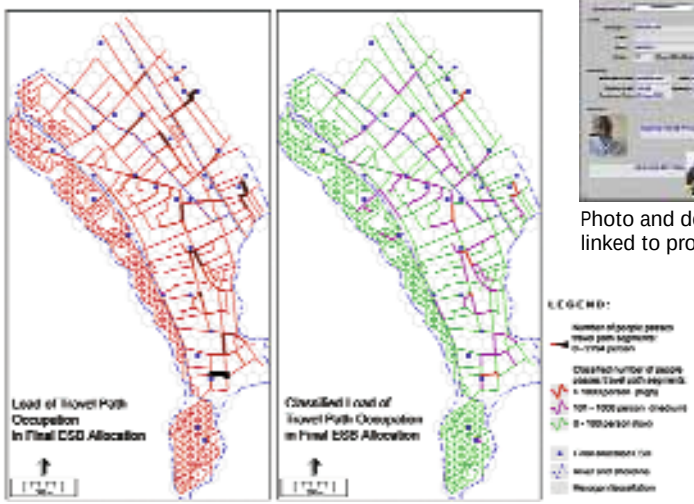
Award for Mr Emmanuel Ooko Midheme from Kenya (UPLA 2005-2007) for his thesis entitled *State vs community-led land tenure regularization in Tanzania: the case of Dar es Salam City*

Award for Mr Amin Budiarjo from Indonesia (UPLA 2004-2006) for his thesis entitled *Evacuation shelter building planning for tsunami-prone area: a case study of Meulaboh City, Indonesia*

Second prize (€ 150) was awarded to Mr Amin Budiarjo from Indonesia (UPLA 2004-2006) for his thesis entitled *Evacuation shelter building planning for tsunami-prone area: a case study of Meulaboh City, Indonesia*. In the judgement of the jury, this thesis (supervised by ITC staff Monika Kuffer and Michiel Damen) was based on good scientific analysis and recommended various aspects for the setting up of "evacuation shelter buildings: robust multistorey buildings to which tsunami-threatened people can flee and find safety". It was considered a very interesting thesis. Unfortunately, the students themselves could not be present to receive the awards. However, we would like to take this opportunity to extend our congratulations to Emmanuel and Budi for their fine achievement.

QuickBird satellite images of the southern part of Meulaboh City, acquired on 18 May 2004 (left) and 7 January 2005 (right) (DigitalGlobe, 2005)

Photo and details of plot owners linked to property particulars



Output maps with the identified locations for evacuation shelter building (ESBs

Landholders with newly issued residential licences

staff news

Menno-Jan Kraak Vice-President ICA

Janneke Kalf itcnews@itc.nl

At the 14th General Assembly of the International Cartographic Association (ICA) held in Moscow from 4 to 10 August 2007, members elected Professor Menno-Jan Kraak, head of the ITC Department of Geo-information Processing, as one of its vice-presidents for the period 2007-2011.

"As we are all aware, the international cartographic community has several important roles to play: internally, as a bond between international professionals working with maps, by creating an environment that allows the exchange of ideas, opinions and visions and as such stimulates individuals and national societies in their work and activities; and, externally, by both 'advertising' the map among those active in geosciences, and seeing what other (non-geo) disciplines have to offer towards strengthening the map," explains Professor Kraak.

Professor Kraak's involvement in cartography goes beyond the ICA. He currently chairs the cartographic section of the society Geo-Information Nederland, while his position at ITC offers him a wide perspective on cartographic activities throughout the world. In addition to participating in scientific communities, he is involved in projects and education in developing countries.

"It would be a pleasure to put these networks to work for the International Cartographic Association and to stimulate the exchange of cartographic knowledge and practice among its members," declares Professor Kraak.

staff news

Welcome to ITC	Dr Ing. M. Gerke	Assistant professor Department of Earth Observation Science	1 April 2007
	Dr Ir S. Salama	Assistant professor Department of Water Resources	1 July 2007
	Ing. M. Ücer	Technician Department of Water Resources	16 July 2007
	Dr I. Ivánová	Lecturer Department of Geo-Information Processing	1 September 2007
	Ms M.J.H.J. Geurts	Alumni coordinator Communication Department	17 September 2007
Staff leaving	Drs P. Hofstee	Department of Urban Regional Planning and Geo-Information Management	1 July 2007
	Dr E.M. Schetselaar	Department of Earth Systems Analysis	1 August 2007
	Mr A. Riekerk	Bureau Educational Affairs	1 October 2007

life after itc

Warm Greetings from Kyoto!

Saut Sagala (Indonesia) sagala@drs.dpri.kyoto-u.ac.jp
ITC UPLA MSc 2004-2006; PhD student at Kyoto University, Kyoto, Japan

Greetings to the big ITC family! At ITC I learned not only geo-information science but also how to cope with a culture and living conditions different from those in my home country. This experience trained me to survive in a new culture, with new food and a new language - an experience that proved useful in helping me to start my new life in Japan in October 2006.

It was at ITC that I learned the core knowledge of disaster management, which turned out to be the inspiration for my MSc thesis about flood vulnerability assessment. I owe a lot to ITC staff and lecturers, especially to my supervisors, Paul Hofstee and Nanette Kingma, who fully supported my thesis work. Later on, the thesis was among the winners of an international competition. My PhD research is about modelling risk communication for volcanic-activity-prone communities. Though my current research does not really utilise GIS, the knowledge on disaster management

From left to right: Emile Dopheide, Saut Sagala, Nanette Kingma and Paul Hofstee at the Development Cooperation prize-giving ceremony in 2007 in Tervuren, Belgium

that I acquired at ITC has significantly contributed to my basic research abilities. My fervent desire is that we should maintain our networks, both between alumni and ITC and among alumni.

Warm regards from Kyoto!

AFRICAGIS Conference and Alumni Gathering

Myriam Ongenae ongenae@itc.nl

The 8th AFRICAGIS Conference and Exhibition took place in Ouagadougou, Burkina Faso, from 17 to 21 September 2007. The principal theme was geo-information for poverty alleviation in Africa. AFRICAGIS 2007 offered participants the opportunity to share experiences, with the aim of explaining the importance and role of geo-information in the fight against poverty.

On 18 September, an alumni reception was held in Ouagadougou. Some 25 alumni from several African countries (e.g. Burkina Faso, Ghana, Ethiopia, Lesotho, Mozambique,

Kenya and Tanzania) attended this reception. A prominent guest was Dr Laurent Sedogo, ITC alumnus and Burkina Faso's present minister of environment. Professor Ian Dowman, the president of ISPRS, also attended the reception. Furthermore, the ITC delegation was invited to dine with the minister of environment and the minister of information technology of Burkina Faso.

Dr Laurent Sedogo and Professor Ian Dowman (president ISPRS)

ITC alumni Kwabena Awusu Asubonteng (Ghana) and Anny Sedogo, daughter of Dr Laurent Sedogo (Burkina Faso)

Dr Rolf de By and Dr Laurent Sedogo (ITC alumnus and Burkina Faso's minister of environment)

Alumni Reception Turkey

Lyande Eelderink

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The autumn edition of the International Education Fairs of Turkey (IEFT) took place from 6 to 10 October 2007 in Istanbul, Izmir and Ankara. On the occasion of this fair ITC organised an alumni gathering, and Turkish alumni gathered in the Sheraton Hotel in Ankara on 9 October.