

SHORT NEWS

Summer Davos

Sixty young scientists gathered from around the world, along with 1,300 influential stakeholders, for the Annual Meeting of New Champions. Selected from a competitive process, participants were in Dalian, China from September 10 to 12 for the Summer Davos, including two attendees from Twente University, Maite Martinez Aldaya and Hans Hilgenkamp, a professor of applied physics and nanotechnology. The meeting focused on re-launching growth with the aim of developing systems which can help promote excellence in scientific research. Five awards of up to 10,000 U.S. dollars each were given by the Inter-Academy Panel on International Issues (IAP) for the most innovative projects collaborated between young scientists and the World Economic Forum's business community during the meeting. **Read further about the event, click: www.tinyurl.com/summerdavos.**

Dutch Jungle

The Female Faculty Network Twente (FFNT) will hold its biannual 'Cycling Through the Dutch Jungle.' Members of the FFNT are those working at the University of Twente for longer than six months, and the meet-and-greet luncheons are designed for newly employed female academics, PhD students, PostDocs and lecturers. The event will be held at 12:30pm till 2pm in the Faculty Club on Tuesday, September 29. **For more information, click: www.tinyurl.com/FFNTatUT.**

UNLEASHING THE POTENTIAL OF ROBOTICS

New Chair of Control Engineering

The new chair of the Control Engineering Group, Professor Stefano Stramigioli, rides a Segway on campus and cycles 30 km to and from work every day. He is the author of more than a hundred publications, serves on numerous committees and participates in multi-million Euro projects. 'I'm very enthusiastic,' he says. 'But I work 60 to 80 hours a week. It takes a lot of effort to still remain scientifically active. I also enjoy playing the drums. Music is something I wish I had more time to do.'

As a participant in four large European projects, Stramigioli confesses that time is not his only issue. Frustrated about the financial situation in academia, he says, 'I am continuously looking for money. It's a big worry. There is no possibility to finance things from the university, the money comes from outside. Right now there is a lot of interest in Robotics, so money is still being invested. But how long will that last? We need to be careful we don't end up in an AI winter effect.' According to Stramigioli, an Artificial Intelligence winter effect is a phenomenon of disinterest and reduced funding that occurs after a period of hype. 'When there are incredible expectations in fields of research, huge amounts of money



Stramigioli believes that with Route 14, the UT takes an informed position on the ethics of Robotics. He says, 'We deal with issues like the social and psychological aspects of Robotics. I believe that human beings have the gift of intellect and there are simply some jobs they should not do.' Photo: Gijs van Ouwkerk

get pumped into the system and if the output is slow, the enthusiasm disappears and the money dries up.' Stramigioli also warns of the perils of uninformed opinions. 'People who are not in the Robotics field often have views based on movies,' he says. 'That's very dangerous. Robotics is a broad field and people shouldn't expect to see a butler like the one in Bicentennial Man. That was science fiction.' In his vision of the future 25 years

from now, Stramigioli predicts that Robotics will be standard technology in homes across the world. He anticipates a boom in the game industry, and miniature robots that can be steered inside the body. 'We are already working on a project called NOTES to develop something that will assist in endoscopic operations, making some difficult surgical procedures more precise.' Although manufacturing began the era of Robotics, Stramigioli is

of the opinion that the real business is now in the cure and care sector. 'If a person needs monitoring 24 hours a day, a robot could be employed to measure things like heart rate and blood pressure, and if they register something anomalous, it can be automatically communicated to a hospital. A robot should never substitute a person, certainly where social interaction is concerned. But why not use them in situations like this?' Telemanned robots, he claims, are being developed to inspect high structures like bridges, and to enter small areas like gas pipes to check for leaks. Robots are already being deployed in security situations, and to monitor the oceans. 'Environmental monitoring is a big issue,' he says. 'We have sensor networks collecting data in our oceans. The problem is not the technology, it's the politicians. It is well known in what kind of hell we are going to end up. Everything in our economy is based on oil. Not long from now there will be no oil whatsoever. We will go into a black hole, and there is not much time to do the necessary research. Our IMPACT institute has many activities in this direction.' Next year Stramigioli will be performing experiments on the effects of grasping at zero gravity during a series of parabolic flights as part of a project with the European Space Agency. 'I'm very fortunate,' he says. 'I tried to become an astronaut recently, but I'm on the old side.'

Audrey Rhodes

THUMBING RIDES, COUCHSURFING, FRUGAL TRAVEL TO INTERFACE WITH CULTURES

Eurotrip on a shoestring budget

Even among frugal travelers, making your way through five European countries in two months on a budget of 400 euros does seem a bit on lean side. Yet Brazilian Joni Hoppen dos Santos, a Business Information and Technology master's student, traveled last summer with a crammed backpack that was filled with maps to route his direction and a picture dictionary, serving as a communication tool to explain to people what he really needed to survive.

Setting out to improve his language skills and seize the summer months in an 'European context' and having spent two years in the Netherlands, Dos Santos's carefree spirit sent him on a hitchhiking journey, starting in Enschede to reach Rome, where the soaring temperatures left him feeling delirious yet afforded him the chance to visit the monument of Giuseppe Garibaldi, a revolutionary figure in Brazilian and Italian history. In Rome, the Vatican City impressed him. 'The statues on the top of the walls are twice as big as the ones on the bottom, and the pillars are bigger than a car,' says Dos Santos who would sometimes duck into internet cafés, sending messages to members on the Hospitality Club website to secure lodging for the night. The hitchhiker's club is supported by volunteers who believe in one idea, namely to bring travelers in touch with people in the places they visit and also give 'locals' a chance to meet people from other cultures to increase



Joni Hoppen dos Santos's conversation on the road: 'A friend once told me, "You know, the problem with hitchhiking is that you never know where you'll end up." Dos Santos responded: "So, it's a lot like life!"'

intercultural understanding. Members can view each other's profiles, send messages and post comments about their experiences. His own personal strategies and tips to hitchhike are insightful, revealing nuisances of human nature. 'I usually never stand by the busy on-ramps to the highways. That is far too risky. I always hitch rides at petrol stations. Most people who speak many languages are not dangerous. The more luxurious the car, the less the chance of getting a ride. If you speak many languages, it also helps.' Dos Santos has shared his musical talents as a fervent pianist and Spanish guitarist on the road, in restaurants, churches and cafés, sometimes earning him tips, and at other times, accom-

modations and friendships, where he shared his own cultural experience. While volunteering at the 14th edition of the Hors Tribu Music Festival in Môtiers, Switzerland, each day he built massive circus-like tents, moved heavy pallets and spent long evenings in French conversations by the warm glow of nightly bonfires. Recalling the dreamlike night life in the mountains of Switzerland with his fellow volunteers after a day of hard labor, he mostly remembers the night sky. 'There were more falling stars than wishes.' Historically, a peaceful country with four official languages, Switzerland charmed Dos Santos, making him appreciate the 'enormous cultural exchange' and 'homogeneous mind set' firmly rooted in this area and

its people. In his native country, the official Portuguese language dominates with, according to him, only around five percent of graduates ending up speaking some English and only one percent of these graduates are able to speak English fluently, making Dos Santos an exception to the norm. He was born in Fraiburgo, Brazil, a city whose geographical features he likens to one of his stops on his recent expedition to Bolzano, Southern Tyrol. 'Everything is translated into Italian and German, and people can switch quickly from one language to another. Since languages will always fight to survive like genes, it was interesting to see how Italian German co-exist.' His own family emphasized above all values, the necessity of a solid education, and was echoed in his mother's mantra, 'Education is the only thing no one can take away from you.' Her words paved his path to gain knowledge, in the classroom or through cultural experiences. The backdrop of his youth was a Brazil in the late 90s plagued with an economic collapse, a skyrocketing inflation rate of 30 percent and a dwindling middle class. His family was stripped of their house, automobile, material possessions and every so often, left with no food on the table to eat. That was the moment when he began to reap the benefits of close friends and family who were instrumental to support his educational goals while he held a full-time job and a full course schedule for almost ten years. Essentially, a philosopher at heart, his growing dismay of the trend to think only of one's needs has left Dos

Santos shying away from the concept to work purely for the attainment of material possessions, a modern value embedded in today's 'me' society, as he calls it. Modern technologies can cause social separation, he says, open up any English-version computer program to notice the heavy use of the personal pronoun 'My.' He offers examples, 'It's all: My attachments. My documents. My photographs. My friends. It's a grave error to believe in self-sufficiency, to reduce yourself and all your talents and capabilities for the sake of money. Likewise, it's wrong to categorize complex human beings to only winners or losers or to work on the level of sum-zero environments (game theory), where you only win if someone else loses.' Strongly he advocates reading at least two books each year, apart from required reading material, and taking the time to know your neighbors. He deems 'shared values' in any society a bonding factor, resulting in uniting people and garnering altruism. Differencing 'shared values' foster division, segregation, marginalization and discrimination, ending in physically visible expressions, such as, walls and visa requirements. 'You'll never know how you can mutually help one another,' says Dos Santos. Being a business major, he recanted the moral lessons that can be extracted from the author Antoine de Saint-Exupéry's novella *The Little Prince*, arguing that one cannot own the stars, because one cannot maintain them.

Robbin Engels