RUglobal

Information and debate from Roskilde University

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Publishing information

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- at 12 noon on the assigned date

Meet an RU employee

Have you ever wondered what the canteen chef is doing in his spare time? Or who the RU postman is?

RUGlobal now goes round and behind the thick concrete walls of RU and into the out-of-the-way corners of the Marbjerg Mark facilities. Who is the gardener at RU? What does the RU printing office staff think of the students? And who is lurking in the darkness at RU when everybody else has gone home and the hallway lights have been turned off a long time ago?

In a new series of articles, RUGlobal will focus on some of the less visible assistants who help keep the wheels turning at RU and their quaint stories about life at the university.

'At home, we just mix it – Danish and Turkish that is'

RUGlobal met RU's postman, Deniz Kilic

Deniz Kilic is 29 years old. During the past three years, he has been working as a postman at RU. He is married with two children and lives in Køge.

Text and photo: Andreas Wraae, RUGlobal

- We have fun, and everybody is very helpful. We help each other.

This is what Deniz Kilic says about his work place at RU's mail service centre where all RU mail is being sorted and distributed. This is also the place to go if you want to borrow one of RU's characteristic red cars. Deniz Kilic is in charge of that too.

But who is Deniz Kilic? And what does he do when he not working. Learn more about Deniz in this issue of RUGlobal.

Two languages becoming one

The otherwise Danish sounding name – at least when spoken – Deniz, reveals his Turkish origin. Back in the 1970s, Deniz' parents came to the then labour-seeking country, Denmark. They settled in Køge, and a few years later Deniz was born as the first out of three children. Because of his Turkish origin, Deniz is capable of switching between Danish and Turkish as he sees fit without giving it any thought whatsoever.

"At home, well, we just mix Danish and Turkish," laughs Deniz whose wife is also Turkish.

Twice a day, Deniz Kilic races off on this electrically driven vehicle, distributing mail to the entire RU.

"We don't think about it at all. We just do it." When every other year, Deniz and his family go to see their Turkish family in Sivas, a town in central Turkey, Danish words easily crop up when they speak Turkish with their families. In this way, Deniz' Turkish family has also learned quite a few Danish words.
"For example 'ice cream', yes' and 'no' and similar words. It is quite fun," says Deniz.

Two weddings

Deniz married young. As young as 18, he gave his vows to his wife, who – like Deniz – has Turkish parents. They had known each other for many years before they married because they attended parallel classes throughout their school years at primary and lower secondary school in Køge. Later on, they both went to business college together, and this was where they seriously fell for each other. They ended up getting married – the Turkish way of course, which is not a low-key affair.

"The Turkish have two weddings, so to speak. First they give a small party for the nearest and dearest; a sort of hen night, but for both the bride and the groom. Then they hold the big wedding and rent a sports hall

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for the occasion because they need a place that can hold many people. About a thousand people came to our wedding," he says.

Football and friends
When asked how he spends his spare time, the answer is delivered promptly:
"My wife and I spend a lot of time together with the children. We have got two. A boy of five and a girl of eight," he says.

He also plays football, series 4, twice a week. It is important to him because that is where he meets with his friends.

"We talk about everything: families, our weekend plans and about how things are in general. Everything, in fact," he says.

Armoured money transport
Having completed business college, Deniz worked as a sales assistant in the sports shop Stadium for several years.

After that, he worked as a driver of money transports for Dansikring, a Danish security services company. In this connection, he remembers one particular occasion when he were to go and refill cash machines.

"I were to drive an armoured car with barred windows and everything. It weighed several tons," he remembers with a grin and describes it as "a tank-like vehicle".

It wasn't pennies he transported either, he establishes, raising his eyebrows.

He took up the job as a postman at RU three years ago. So far he really likes it, because being a postman at the university means talking to a lot of different people every day on his route at RU. He finds that interesting.

"And I have good colleagues too; which is very important. "You need to have fun at work," he says, establishing that they certainly do at the RU mail service centre.

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Kristine Niss and Jeppe Dyre

Researchers can now predict how liquids behave under high pressure

New experiments conducted by physicists at RU show that it is possible to predict how liquids behave under extreme pressure. The findings are key in better understanding the materials surrounding us in our everyday lives, for example glass, plastic and metal.

By: Camilla Buchardt, HR & Information Office

When holding a caramel in your hand, it becomes soft. Why? Glass is both fluid and solid. Why? A number of new experiments conducted at RU's National Research Foundation Centre, Glass and Time might enlighten us in this context because they have shown that researchers know much more about a particular type of liquids, the so-called "simple liquids", such as oils and metal, and their viscosity over a range of pressure and temperature than previously thought.

To be more precise, the researchers have demonstrated that it is possible to predict the behaviour of a liquid, e.g. whether it becomes more viscous or thinner at extremely high pressure based on measurements performed at normal pressure (corresponding to one atmospheric pressure). At normal pressure, researchers can predict what happens to liquids at not less than 10,000 atmospheric pressure.

"Our findings correspond somewhat to measuring the wind today, and based on that measurement, predicting not just what the weather will be like in Denmark tomorrow, but also what the weather will be like in exactly six months – in Hawaii!" explains Associate Professor, Physics, at RU, Kristine Niss.

Mathematical equations solving the mystery
When a liquid is under pressure, viscosity will change: the liquid will become more viscous, i.e. thicker. When the temperature of a liquid is reduced, the viscosity of the fluid is also increased. But how much more viscous will the liquid become when reducing the temperature compared to exposing it to high pressure? The researchers have now found the answer to precisely that question and can explain it by way of mathematical equations:
"What is new is that we now understand the relationship between pressure and temperature and what it means to the viscosity of a liquid. We have always been able to measure it, but now we also understand it," says Kristine Niss.

But why is it so important to understand it if you have always been able to measure it?
"The Stone Age man could also see the sun rise and set – now, we know it's because the earth is turning. Understanding something means knowing why," explains Kristine Niss.

A gold mine
Professor of Physics, Jeppe Dyre, RU, is among the researchers behind the new experiments.

Simple fluids versus complex fluids
In the world of physics, many liquids such as oil or melted metal are defined as simple. Examples of complex liquids are water and alcohol. In fact, water is an extremely complex liquid that breaks with many different rules within the field of physics. For example nearly all substances expand when heated, but at temperatures between zero and four degrees Celcius, water contracts when heated. Furthermore, by far most substances expand when melted, whereas, water contracts. This is why ice bergs float on water – their density is smaller than that of water.

Water has bizarre properties because its molecules are arranged in special structures. Consequently, there is a lot we do not know about water, even today, when intensive research is conducted in the structure and dynamics of water.

The RU researchers are focusing on the opposite end of the scale of complexity, namely the simple liquids that the researchers have now demonstrated are even simpler than previously thought.

When talking about the new research findings, he speaks very quickly and enthusiastically:

"We now have the equations which show that we have figured it all out – without changing the pressure," he says.

His and the other researchers' findings were published in the October issue of the recognised journal Nature Physics where they were also commented on by "the grand old man" of glass science, Austen Angell, in a so-called "News and Views" comment.

"Our colleagues across the globe are telling us: 'You have struck a gold mine' – which is also what we think, even though, with basic research, it is difficult to predict precisely what our findings may lead to over time," says Jeppe Dyre. He emphasises, however, that the prediction, which only applies to "simple" liquids and not for example water, which is an 'extremely complex liquid', may open up to a lot of new knowledge of materials of which we only know little today.

Kristine Niss adds:

"How come glass goes from liquid to solid at a given temperature? Why is there such a thing as glass transition? We hope that someday we will be able to answer those questions. And these are only a few of the things we have come closer to understanding through our research."

New knowledge to the industry
Both researchers emphasise, however, that they conduct basic research, and therefore it is neither possible nor the intention to know precisely how to apply the research findings.

"Newton did not have the faintest idea either that 300 years later his equations could be used for a Toyota engine," Jeppe Dyre points out.

At any rate, the two RU physicists do venture a couple of suggestions for how to apply the findings:

"Quite a few things are in reality what we understand as a liquid, for example plastic. And it is very important to the industry to understand the properties of material, for example in the food industry and the pharmaceutical industry," says Kristine Niss.

The small "thingee" that you use to extract a SIM card from iPhone4 is an example of a product manufactured from a new type of material. In actual fact, the "thingee" is Apple's large-scale test of metal glass which so far has not been mass produced since researchers only know little of the properties of the material.

"New innovative materials will always be crucial to the industry, for example the pharmaceutical industry where tablets are needed that are easily degraded by the body," says Kristine Niss.

Dream scenario
To Kristine Niss, the dream scenario is that in 20 years from now, physics students will learn of their findings because it is crucial to our basic understanding of the world and "which will therefore also be applied in the future":

"But, most of all, this is about understanding the world – and not necessarily about improving lubricating oils tomorrow," she emphasises.

"We know how to send people to the moon, but we can't quite explain why a caramel becomes soft when holding it in our hand. That is absurd – and fascinating."

UNIverse

My election at RU

RUGlobal encouraged many of the candidates for the board to keep diaries in the time leading up to this year's RU election. One of the candidates for the University Board of Directors, Therese Heide, took up the challenge. In this article, you can learn about Therese's busy week before the day of the election.

By Therese Heide

This is the second year I stand for election – the election at RU. Last year, I put myself forward as a candidate for the Academic Council, and luckily I was elected. Therefore, I am now working hard, speaking up for the students. This year, I stand for election to the University Board of Directors. Last year was a very busy year; this year has been no less busy.

I am 22 years old and from Jelling (yes – precisely, where the rune stone is). At RU, I study Policy and Administration.

Monday morning wearing gloves, I was distributing cold leaflets with information on RU and the Student Council. And coffee – hot coffee – I had made together with Aurora, Emil and Lena since 7:00 in the morning. We were the morning coffee team of the day. Each morning during the election campaign, a team is making coffee, getting coffee cans and extra coffee for the next day, organising cups with lids, election campaign leaflets and styrene boxes to keep the coffee warm in the morning cold. Lena has taken part in Student Council election campaigns many times. This morning, I asked Lena how long it has been custom to distribute coffee during an election

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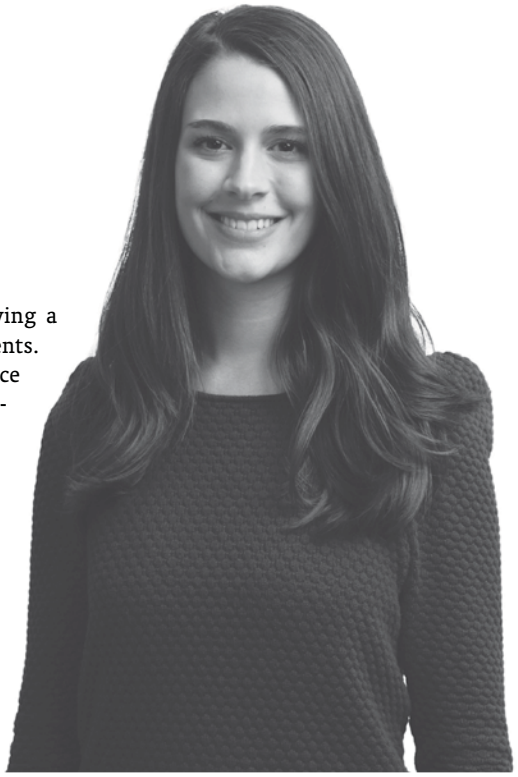
campaign, and she said it has been a tradition as long as she has been a student at RU. I think the tradition is good and it makes the entire campaign a lot more fun. And who doesn't want a free cup of coffee when arriving on the morning train?

This Monday, I also gave out coffee at lunch time; this time in the canteen. Even though most people just want to have their lunch in peace, some also want to talk – and that's what makes it fun! In my everyday life as a student and in my commitment to student politics at RU I don't often – unprovoked – speak to THAT many people I don't know during the day. It is fantastic sensing that my work at the Academic Council, and hopefully also on the University Board of Directors from February, is appreciated and that I am not completely off the mark about my everyday observations in respect of what is important to RU's students. This is what makes the hard work worthwhile.

After having struggled a bit with the Student Council's website, I went home at five. My room mates and I cooked dinner, and I read about a hundred pages of appendices because I had to attend meetings the whole of the next day.

Tuesday morning we started by having a meeting with a large group of students. We needed to get the last details in place before the meeting of the Training Committee, on which I have a seat as the Academic Council representative. There was a massive turnout since some of the items on the agenda mattered to people other than just us attendants. We were to discuss, among other things, RU's new master's programme and a policy covering minor subjects at RU. We said the things we had in mind, and the discussions we had were highly informative, and after that we were to attend a seminar with the Academic Council, lasting ten hours. Let's just say that for a moment I pushed the election campaign a little aside to concentrate on the actual purpose of the election campaign, namely: extremely interesting work with an educational content of a format that I have yet to experience in my studies.

I love my programme at RU and I love the way we do things, but I am not blind to things that could be done differently, and I believe that is the formula of true commitment. This is the combination I think makes my work valuable, and which I can share with my fellow students. On the Student Council, all types of people are represented. We all have different skills, but we work together because we have a common goal – to work for a better university – together.



This is Therese Heide's second election at RU. This year, she was elected for the University Board of Directors together with Kasper Bjerring Petersen.

Thursday afternoon I learned that I had been elected to the University Board of Directors and thank you so much for that! I was really pleased to hear that Kasper Bjerring Petersen, who stood for election together with me, had also been elected. I was, however, also a bit surprised when I learned about the election result. This year, just under 23% voted at the election compared to 26.5% last year. I wonder why. I think it is disappointing and a shame really, and I don't quite understand why. Now, I intend to spend three months putting in every effort on the Academic Council until I am to join the University Board of Directors. Maybe I will be able to promote my work with the effect that more people will vote at next year's election?

The RU 2011 election result – the following students have been elected:
To the University Board of Directors: Therese Heide (Student Council) and Kasper Bjerring Petersen (Student Council)

To the Academic Council
- Ann Højer Vilhelmsen (Frit Forum)
- Christian Keller Hansen (Frit Forum)
- Sixten Wie Bang (Student Council)
- Theis Lykkegaard (Student Council)
- Ask Gudmundsen (Student Council)
- Sofie Nuchel Heggenhougen (Student Council)

To the Department Council of Society and Globalisation:
- Julie Metha Rosenkilde
- Astrid Østergaard Andersen

To the Study Board for the Public Administration programmes:
- Christian Keller Hansen
- Therese Agerschou Heide
- Kim Daniel Bastiansen
- Eline Bjerrum Nielsen

To the Study Board for International Development Studies:
- Julie Metha Rosenkilde
- Pernille Høj
- Stella Elisabeth Wengel Hansen
- To the Study Board for Cultural Encounters:
- Medine Duvarci
- Mathilde Bysko