

## Prospects 2016

#### What the New Year has in store for us



Dear ladies and gentlemen,

You see a new face in the CLAAS Foundation Executive Board: Since summer 2015 Frank Klüsener is in charge of the CLAAS Foundation finances. At the Award Ceremony in Harsewinkel in October, he was officially introduced as successor to Uwe Lütkeschümer who left the Executive Board after 16 successful years.

The international Helmut Claas-Scholarship 2016 has been launched with the application deadline of 27.05.2016. Also, applications for new teams who aim to participate at the Field Robot Event 2016 in Haßfurt, Germany, can be submitted by the 27.02.2016. All application details are available at www.claas-foundation.com.

In our traditional Award Cermony for the Helmut Claas-Scholarship 2015, our new prize winners presented their research topics in a professional and passionate manner, striking their enthusiasm for their chosen topic. With their presentations, they proved that they are not only excellent researchers and scientists, but that they also understand how to impart their knowledge to an audience - this is an important talent and grows in importance in science and education.

The CLAAS Foundation keeps an eye on the youngest target group – the children at primary school level. In cooperation with the private education agency ScienceLab, primary school class rooms turn into research laboratories. Here school kids carry out small experiments and learn how to be "real researchers".

Yours sincerely



Sylvia Looks

Frank Klüsener

**CLAAS Foundation Executive Board** 



Prize winners, Board of Trustees and Jury.

CLAAS Foundation awards international up-and-coming talents

# Scholarships and prizes presented to students coming to a value of more than 45.000 Euro

Up-and-coming talents of natural science and technology were guests of the CLAAS Foundation in Harsewinkel. The students from Germany, England, the Netherlands, Ireland, Italy, Hungary, Slovak republic and Rumania were presented with the Helmut Claas-Scholarships, bonus prizes and International Student Prize which in total came to a value of 45.000 Euro.

Before the official prize revelations, the young researcher presented their topics and only learned at the very end which prize they had won. Helmut Claas, Chairman of the CLAAS Foundation Board of Trustees, personally handed out the certificates and congratulated the prize winners on their achievement.

Following prizes were awarded:

1. Prize: Florian Többen (25) received the first prize of a total of 7.200 Euro. He studies industrial engineering at the Karlsruhe Institute of Technology. In his bachelor thesis he dealt with an analysis of the potential for regional energy production from biomass.

- 2. Prize: 23-year old chemical engineering student Timothy Taylor was awarded for his two-part bachelor thesis on the production of combined heat and power from sugarcane bagasse and the design of a biomass circulating fluidised bed furnace for the production of combined heat and power plant. Timothy received the second prize of 6.000 Euro and is a student of the Aston University in Birmingham.
- 3. Prize: Oliver Bumann (27) of the University of Hohenheim also tackled a topic in the area of energy production and was presented with the third prize of 4.800 Euro. In his bachelor thesis he investigated how wood chips in a TLUD reactor can be converted into carb.
- 4. Prize: The fourth prize of a value of 3.600 Euro went to Alexander Ewen (26). He studies agricultural engineering at the University of Hohenheim. He tackled the data processing and privacy protection by using a management software at agricultural contractors.

In addition to the annual scholarships, four bonus prizes were presented coming to a value of 1.500 Euro each. In the category "Resources" Ariane Voglhuber-Slavinsky from the University of Hohenheim was awarded with

a bonus prize. Her project deals with the comparison of chemically activated carbons derived from agricultural and forestal residues.

Paolo Gerardo Bertin from the University of Padua, Italy, received a bonus prize in the category "Innovation". The topic of his bachelor thesis was real time soil scanning, for automatic optimization of agricultural operations.

Owen Doren did his project at the Institute of Technology in Tralee, Ireland. He gained the bonus prize in the category "Technical Engagement" for modulating a Trailer Brake System

The bonus prize in the category "Internationality" was given to Stefan Epping from the University of Applied Sciences Cologne. He developed an ISOBUS network for agricultural tractors.

International Students Prizes:
The International Student Prizes coming to a total of 4.500 Euro per universities went to students of the Banat University of Agricultural Sciences Timisoara (Romania), Budapest University of Technology and Economy (Hungary), Wageningen University (the Netherlands) and Slovak University of Agriculture in Nitra (Slovak Republic).

Prize winners from the Banat University are Catalin Almasan Petru, Daniel-Alexandru Rotaru and Andrei Sîrbu Florin.

László Péter Olasz, Flórián Farkas and Martin Jeszenszki from the Budapest University of Technology and Economy were pleased about their prizes, too.

Wageningen University also has winners which are Koen van Boheemen, Maaike Vollering and Daan van der Stelt.

From the Slovak University of Agriculture in Nitra the winners are Patrik Kósa, Filip Štefunko und Marián Kišev.

Moreover, there is an internal change within the CLAAS Foundation: After 16 years Mr Uwe Lütkeschümer, director of the CLAAS Foundation passes on his responsibilities to Frank Klüsener. Together with Sylvia Looks, Frank Klüsener will conduct the future CLAAS Foundation's business.

Field Robot Event 2015 in Slovenia // Team appplication 2016 starts now

### Robots "live on the fields"

In 2015 the international Field Robot Event took place in Slovenia. The Agricultural Institute of the University of Maribor made an excellent job in organizing this competition and making it a special experience to the robot tinkerers who came to Maribor from all over Europe. The CLAAS Foundation was again one of the main supporters of this year's edition of the Field Robot Event. A new team from Harper Adams University received seed funding for their new robot. They made it to fourth position in a tough competition. Third place went to the Technical University Denmark, second place to the Czech University of Life Sciences and the overall winner was the University of Siegen, Germany. Further information can be found on <a href="http://fre2015.um.si/">http://fre2015.um.si/</a>

Are you a team of students? Do you wish to participate in the international Field Robot Event? The CLAAS Foundation can help you – up to a maximum amount of 1500 Euro per team. Find out more on our website www.claas-foundation.com

Tobias Rose presents his topic on dairy cows at the CLAAS Foundation Award Ceremony.





Searching for a challenge: The team of Harper Adams with their robot in Slovenia.

Project report by Tobias Rose

### Identify sick cows

In a joint research project of the University of Applied Sciences Kiel, the Christian-Albrechts-University Kiel and the Thünen-Institiut Westerau a Real Time Location System was used to analyse the gait behaviour of lactating dairy cows. Sick cows move and behave different from healthy cows- this was the hypothesis. "The aim was an automated detection of lameness to establish an earlier and more systematic detection in the future" said Tobias Rose from the University of Applied Sciences Kiel. The execution of the project was made possible by the financial support of the CLAAS Foundation. The localisation system showed a high reliability and sufficient accuracy. Using the position data of the cows seems to be a promising approach to identify claw diseases, but additional influencing factors must be considered.



Sweet farewell: Uwe Lütkeschümer cuts his special cake on the occasion of his official departure of the CLAAS Foundation Executive Board.