

UNIVERSITÄT HOHENHEIM



P R O G R A M

of the 4<sup>th</sup>

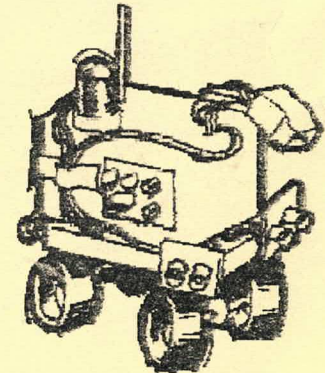
F I E L D

R O B O T

E V E N T

JUNE 23 & 24

2006



## Program

Friday, June 23rd 2006

Universität Hohenheim, Lecture room Ö2

| Time          | Program   |
|---------------|---|
| 11:00         | <b>Begin Registration</b>   |
| 13:00         | <b>Robot Fair</b>   |
| 14:00         | <b>Official Opening</b><br>Prof. Dr. K. Köller<br><i>Vice-Rector</i><br><i>Universität Hohenheim, Stuttgart-Hohenheim (D)</i>                             |
| 14:20 – 14:50 | <b>Titel</b><br>Name<br><i>Fraunhofer Institute for Manufacturing Engineering and Automation (IPA), Stuttgart (D)</i>                                     |
| 14:50 – 15:20 | <b>Autonomous Mechanization in Agriculture</b><br>Prof. Dr. H.-W. Griepentrog<br><i>KVL Copenhagen, Copenhagen (DK)</i>                                   |
| 15:20 – 15:50 | <b>Greenhouse Mechanization: State of the Art and Future Perspectives</b><br>Prof. Dr. ir. E. van Henten<br><i>Wageningen University, Wageningen (NL)</i> |
| 15:50 – 16:00 | <b>Short break</b>  |
| 16:00 – 16:30 | <b>Sensors in Plant Production</b><br>Prof. Dr.-Ing. S. Böttinger<br><i>Universität Hohenheim, Stuttgart-Hohenheim (D)</i>                                |
| 16:30 – 17:00 | <b>LabVIEW Graphical Programming for Robot Control</b><br>Dipl.-Ing. (FH) Philippe Götz<br><i>National Instruments, Stuttgart (D)</i>                     |
| 17:00 – 17:30 | <b>4<sup>th</sup> Field Robot Event 2006: Zu Gast bei Freunden</b><br>Prof. Dr. J. Müller<br><i>Universität Hohenheim, Stuttgart-Hohenheim (D)</i>        |

Afterwards we would like to invite all participants to join us for a BBQ in the yard of the AgEngineering building.

As Friday, June 23<sup>rd</sup> is an important „University Holiday“, the *Dies Academicus*, in Hohenheim, you can enjoy a range of cultural activities and partys around the Hohenheim Castle until mid-night after the BBQ.

## Program

Saturday, June 24th 2006

Universität Hohenheim, Meiereihof

| Time          | Program  |
|---------------|--|
| 10:00         | <b>Robot Warm-up</b>   |
| 12:00         | <b>Official Opening</b><br>Prof. Dr. H. Liebig<br><i>Rektor</i><br><i>Universität Hohenheim, Stuttgart-Hohenheim (D)</i><br>Prof. Dr. K. Köller<br><i>Vice-Rector</i><br><i>Universität Hohenheim, Stuttgart-Hohenheim (D)</i>   |
| approx. 12:30 | <b>Begin Basic Competition</b>   |
|               | <b>The Line</b><br>Robot have to target a corner-flag in approx. 10 m distance and approach it. While approaching, the robot has to draw a white line.<br><i>Performance criteria include closeness of flag approach and jury ranking according to speed and style, as well as accurateness of the line.</i> |
|               | <b>Dandelion Detection</b><br>Robots have to navigate in curved rows, count “dandelions”, and return in the over-next row. Time limit: 3 min.<br><i>Performance criteria include the distance covered, the accurateness of counting, and the jury ranking according to style.</i>                            |
|               | <b>Speed Race</b><br>Needless to say...  |
| approx. 15:00 | <b>Begin Advanced Competition</b>  |
|               | <b>Hole Detection in Grass</b><br>Robots have to identify holes in grass.<br><i>Performance criteria include the accurateness of detection, and the jury ranking.</i>  |
| approx. 16:00 | <b>Begin Freestyle</b>   |
|               | <b>Let's all just be surprised...</b>  |
| approx. 17:00 | <b>Awards Show and Farewell</b>  |

In the small breaks while changing robots and disciplines we would like to invite all participants for lunch at “Conny’s” – cold beer and bratwurst.

For visitors, the same option is available at reasonable prices.

## Contest Information

### Jury

- **Prof. Dr. J. Müller** (*Head of Jury*)  
*Universität Hohenheim, Stuttgart-Hohenheim (D)*
- **Prof. Dr. H.-W. Griepentrog**  
*KVL Copenhagen (DK)*
- **Dr. J. Morhard**  
*Universität Hohenheim, Stuttgart-Hohenheim (D)*
- **Prof. Dr. Ir. G. van Straten**  
*Wageningen University, Wageningen (NL)*
- **N.N.**  
*Fraunhofer-IPA, Stuttgart (D)*

The jury will meet on Friday, at 13:00h in Ö2.

The ranking procedure will be announced by Prof. Müller on Friday, June 23<sup>rd</sup>.

### Prices

The following prices are given:

- Performance based prices
  - 1<sup>st</sup> Price € 1.000,-
  - 2<sup>nd</sup> Price € 750,-
  - 3<sup>rd</sup> Price € 500,-
- Freestyle price € 500,-
- Special awards € 250,-

Further, National Instruments Germany has offered to provide a LabVIEW student licences for **each** (registered) participant (up to a total of 80), and will donate a USB DataGrabber for the winning team.

## A brief Introduction to the University of Hohenheim

### Campus

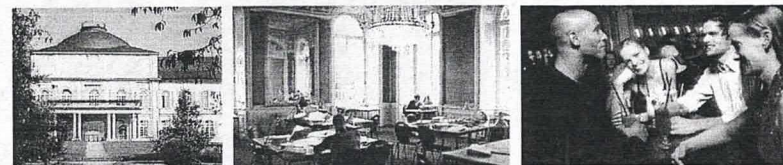
Hohenheim is not an anonymous "mass university". The campus with the old *Castle Park* and *Botanical Garden*, it is one of the most attractive in Germany - an ideal combination of state-of-the-art research and relaxing. All departments and university facilities are in walking distances of a few minutes.

### Teaching

The faculty of agricultural sciences has 50 professors and about 1000 students. You will find an "open-door policy" - you can turn up to see any of the academic staff without an appointment. The teaching facilities are generous - there is no "pushing for seats" in lectures, and no difficulties in finding a workbench in the laboratory.

### Teaching and research

Hohenheim stands for an extended curriculum in all areas of agricultural research - that's unique in Germany. Teaching and research is carried out in 18 departments and the Scientific Centres for the *Tropics and Subtropics* and *Eastern Europe*. Only few universities worldwide can offer a comparable practical orientation and interdisciplinary focus at both, national and international level.



### Fit for business

A wide range of facilities offering additional qualifications is open to students and academic staff, including a *language center* with *mediothek* and *computer courses*. Free access to e-mail and the internet and libraries that are open 79 hours a week, including Saturdays and Sundays, goes without saying.

### A global reach

Students and researchers from abroad have always been a constituent part of every university. In an age of globalization, a period of study abroad is almost obligatory for students. The university offers student exchanges with some fifty institutes of higher education in Europe and overseas. These arrangements allow you to spend one or more semesters abroad, while the modular system makes it possible to gain as many credits at international universities as you would like to.

### Leisure

Hohenheim is situated to the south of Stuttgart in the middle of the countryside. This makes it possible to combine a pleasant life in the country with all the night-life of big cities. You will find numerous clubs, bars and discotheques in the cities around Hohenheim: Stuttgart, Esslingen, Tübingen, and many more are well accessible even with public transport. The university also has its own sports-center including a gym and tennis facilities and is the home to numerous museums, including the largest museum on agriculture in Germany.