## Higher Education Learning Agreement for Traineeships

Daniel Dobiński 2015/2016

#### After the Mobility

Table D - Traineeship Certificate by the Receiving Organisation/Enterprise

Name of the trainee: Daniel Dobiński

Name of the Receiving Organisation/Enterprise: Fraunhofer Institute for Integrated Circuits IIS, Design Automation Division EAS

Sector of the Receiving Organisation/Enterprise: Integrated circuits / Design automation

Address of the Receiving Organisation/Enterprise: Zeunerstr. 38, Dresden, Germany, +49 351 4640 - 701, info@eas.iis.fraunhofer.de website: http://www.eas.iis.fraunhofer.de/en.html

Start date and end date of traineeship: from [day/month/year] 1.11.2015 to [day/month/year] 31.12.2015

Traineeship title: Analysis of MOSFET degradation mechanisms in integrated circuits

#### Detailed programme of the traineeship period including tasks carried out by the trainee:

Introductory phase (2 weeks)

- Getting to know semiconductor degradation mechanisms and describing models
- Getting to know AMS design environments and reliability simulation extensions
- Deliverable: concept for model development and tool integration

Development phase (4 weeks)

- Development of model structure for important degradation mechanisms
- Fit of model parameters to example degradation data from foundry
- Model implementation into tool environment
- Deliverable: model developed and integrated

Test and demonstration phase (2 weeks)

- Model test in tool environment using a circuit example
- Model improvements based on first results

Deliverable: Demonstration of model function for simulation of circuit degradation

Knowledge, skills (intellectual and practical) and competences acquired (achieved Learning Outcomes):

- Understanding of front-end-of-line degradation mechanisms in advanced technologies
- Analysis of degradation data
- Application of the Cadence RelXpert degradation simulator



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#### Evaluation of the trainee:

Evaluation of the trainee	FAIL	Poor	Good	Excellent
A. Placement/Assignment				
Applicability of knowledge and results to the needs of the organisation	_		X	
Method of working while performing the assignment			X	
Results			X	
B. Attitude towards work				
Self-employment			wante franci	X
Initiative				х
Responsibility		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	х	
Involvement			X	
Speed of work			Х	
Planning		-	Х	
C. Social skills		20		
Contact with staff members				Х
Contact with executives				
Contact with external people			same la	
Adaptation to organizational rules		53		X
Students' capacity to integrate with organization and foreign cultures				X
D. Personal qualities				
Flexibility				х
Creativity		zh z p.t. k see	Х	
Criticism towards own work		\$ m		х
Willingness to revise own work or attitude				х
Persuasiveness		1 12 12 10 1 17 8		х
Handling work pressure				х

#### Perspectives:

Would you like to receive a trainee from Lodz University of Technology?

**x** YES

 $\square$  NO

#### If YES, please describe:

- o duration
- working hours
- project description
- tasks of the Erasmus trainee
- requirements
- what you offer
- how to apply



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Date: Dec. 22, 2015

Name and signature of the Supervisor at the Receiving Organisation/Enterprise:

Kay - Uwe giering Dr. Kay-Uwe Giering

(Supervisor)

Roland Jancke

(Group leader "Reliability and Test")