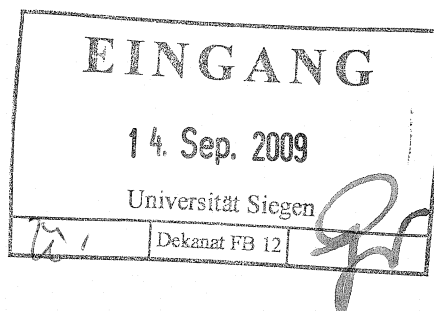




Mohsin Nawaz
Fasanenstr. 183
82008, Unterhaching
Tel(Handy): +49 (176) 23594438
Tel(Office) : +49 (89) 234 64075

Prof. Dr. Elmar Griese
Dean, Electrical Engineering and Computer science
University of Siegen
D – 57068 Siegen

Dated: September 11th, 2009

Job Application for “Junior Professor for Sensorics and Sensor Data Processing”

I have been informed of this position through the website: “www.mstonline.de”. I am quite interested in this position and would like to present my candidacy.

I have currently concluded my PhD thesis, with the topic “Low Impedance Wheel Resonators for Low Voltage and Low Power Applications”. This study was focused at developing MEMS resonators which have the ability to replace quartz resonators. Other than the extensive experience with MEMS resonators I have been deeply engaged with the development of ‘Silicon Microphones’ at Infineon Technologies. Additionally, I bring with me experience with analog circuit design for RF applications. I have also worked with digital circuit design during my development. I have worked at various abstraction levels of circuit design and have found myself to be quite comfortable with all of them.

My endeavours with MEMS resonators and Silicon-Microphones have equipped me with the abilities and skills required for sensor development. Additionally my expertise with circuit design and electronic engineering, in general, enable me to contribute towards sensor data processing. Other than the research related responsibilities, I would be most delighted to teach courses. My aptitude for teaching has been positively acknowledged by my colleagues during studies. Being blessed with the ability of grasping concepts very quickly I have always been in a position to assist fellow colleagues with their courses. This has taught me one thing: ‘teaching is all about describing as per the comprehension abilities of the audience’.

My knowledge and experiences have equipped me with the abilities and skills required to get a head start with this position. My drive and motivation will guide me through in achieving the excellence expected of me.

I am attaching my particulars with this mail for your kind review and the project proposal will follow shortly, in a few days. I would be looking forward to the opportunity of meeting you in person to better discuss my ambitions and plans.

Sincerely,


Mohsin Nawaz

MOHSIN NAWAZ

PERSONAL DETAILS

D.O.B: August 8th, 1981
Gender: Male
Marital Status: Married
Address: Fasanenstr. 183, 82008 Unterhaching, Germany.
Telephone: +49 (176) 23594438
Email: mohsinn@gmail.com



EDUCATION

Doctoral Studies (2007-2009)

PhD with the topic: "A Low Impedance Wheel Resonator for Low Voltage & Low Power Applications" from Friedrich-Alexander-Universität Erlangen-Nürnberg. With a **Grade 1.53**.

Graduate Studies (2004-2007)

M.Sc. in Microelectronics and Microsystems from TU-Hamburg Harburg.
With a **Grade 1.40**.

Under Graduate Studies (1999-2003)

BS in Electronic Engineering from Ghulam Ishaq Khan Institute of Engineering Sciences and Technology PAKISTAN.
With a **CGPA 3.33** on the scale of 4.00 (4.00 being the best).

WORKING EXPERIENCE

March, 2007 – July, 2009: PhD Thesis at Infineon Technologies

Development of low impedance resonators for low power applications aimed at replacing Quartz based oscillators; challenges are to achieve the accuracy and stability requirements for cutting edge applications like GSM, UMTS and GPS. The tools used in design are *Ansys FEM*, *Virtuoso*, *Matlab*. The tools used in measurements are *Impedance Analyzers*, *Network Analyzers*.

As a secondary project I worked on the development of Silicon-Microphone. Prime responsibilities: improvement of EMC, shrink of silicon-microphone device and measurement setup of digital microphone. The tools used were: *Cadence (Spectre, Analog Artist, Virtuoso)*, *Matlab*, *Audio-Analyzers* and *Logic-Analyzers*.

August, 2006 – February, 2007: Master Thesis at Infineon Technologies

The task was design, implementation and testing of a band-pass filter for the *GPS front-end module for mobile phone applications*. Filters with single ended output and differential output were designed. The designed filters were implemented using the passives integration technology available at *Infineon Technologies*. The filters were designed using the tools *ADS by Agilent*, *HFSS by Ansoft*, *Virtuoso* & *Matlab*. The measurements were done using *Network Analyzers*.

May, 2006 – July, 2006: Student Design Project at Institute of NANOELECTRONIC at TUHH

The task was the Top Level Module Design & Verifiacion of ECOC4(Entropy Coding ADC, 4th Generation). ECOC4 was designed using the 0.6um CMOS process form XFAB. The chip was designed using *Virtuoso*, *Silicon Ensemble*. Functional Verification was done using *Spectre*, *VerilogA* & *Matlab*.

October, 2005 – April, 2006: Internship at INFINEON Technologies

I was assigned the task of analyzing and modifying High-Q inductive coils which can be monolithically integrated with Integrated Circuits. In the second phase scalable, by dimension, models of a selected few coils were generated. The tools used for this purpose were *Ansoft's 'High Frequency Structure Simulator'*, *Matlab* and *Agilent's 'Advanced Design System'*.

July, 2003 – December, 2003: Maintenance Engineer at SIEMENS Pakistan

My task was the maintenance and modification of operational plants driven by SIEMENS PLC's and DRIVES. During this period I was exposed to SIAMTIC MANAGER, S7MICROWIN, SIMOVIS & PROTOOL.

June, 2002 – July, 2002: Internship at PACKAGES (pvt) Ltd

I was assigned the task of monitoring power factor improvement panels and to suggest techniques of improvement. Additionally there were three projects of designing and implementing electronic circuits for particular applications.

June, 2001 – July, 2001: Internship at SIEMENS Pakistan

I was assigned the job of programming PLC's. I worked on their LOGO (a type of PLC) and also had a brief overlook at the programming methodology of SIMATIC (a wide range of advanced PLC's) .

TECHNICAL SKILLS

VERILOG	<i>Expert</i>	RF Measurements	<i>Good</i>
VERILOG-A	<i>Good</i>	Audio Measurements	<i>Good</i>
CADENCE VIRTUOSO	<i>Expert</i>	LABVIEW	<i>Good</i>
CADENCE SPECTRE	<i>Expert</i>	MATLAB	<i>Expert</i>
CADENCE SKILL	<i>Expert</i>	C/C++ Programming Language	<i>Expert</i>
CADENCE ANALOG ARTIST	<i>Expert</i>	Assembly Language Programming	<i>Good</i>
SILICON ENSEMBLE	<i>Good</i>	PLC, DSP & Microcontrollers	<i>Good</i>
SYNOPTIS	<i>Basic</i>	SIEMENS, Simatic Manager	<i>Basic</i>
ANSOFT HFSS	<i>Expert</i>	SIEMENS, S7 Microwin	<i>Basic</i>
AGILENT ADS	<i>Good</i>	SIEMENS, Simovis	<i>Basic</i>
ANSYS FEM	<i>Expert</i>	SIEMENS, Protool	<i>Basic</i>
ANSYS ICEM CFD	<i>Basic</i>		

AWARDS RECEIVED

- Awarded Scholarship for outstanding academic performance by TU-Hamburg Harburg.
- Awarded Dean's Honor Role in the fourth, sixth and eighth semester of Under-Graduate Studies.
- Achieved first position of my class in intermediate examination.
- Achieved first position of my class in matriculation.

EXTRA CURRICULAR ACTIVITIES

- Honorary member NETRONIX.
- Captain of Batch 9 Badminton Team.
- Squasch, Tennis & Swimming.
- Ex-Member of GIKI adventure club.
- Ex-Member of Sarhad Safari Adventure Society.
- Participant of TECHCOM 2002, IEE local chapter.

INTERESTS

Hiking
Skiing

Rock Climbing
Ice Climbing

LINGUISTIC SKILLS

Punjabi *Mother Tongue*
Urdu *Fluent*

English *Fluent*
German *Good*

SOFT SKILLS

High Motivation
Integrity & Honesty
Discipline

Optimism
Mental Vigor
Team Player

REFERENCES

Dr. Wolfgang Klein (Principal)

Infineon Technologies

Am Campeon 1-12, 85579 Neubiberg, Germany.

Tel(Off) : +49 (89) 234 46864

Email: wolfgang.klein@infineon.com

Dr. Werner Weber (Senior Principal)

Infineon Technologies

Am Campeon 1-12, 85579 Neubiberg, Germany.

Tel(Off) : +49 (89) 234 48470

Email: werner.weber@infineon.com

Prof. Dr. Georg Fischer (PhD Supervisor)

Friedrich-Alexander-Universität Erlangen-Nürnberg

Cauerstraße. 9, 91058 Erlangen, Germany.

Tel(Off) : +49 (9131) 85-27186

Email: fischer@lte.eei.uni-erlangen.de

Prof. Dr. Robert Weigel (Chairman LFTE)

Friedrich-Alexander-Universität Erlangen-Nürnberg

Cauerstraße. 9, 91058 Erlangen, Germany.

Tel(Off) : +49 (9131) 85-27200

Email: weigel@lte.eei.uni-erlangen.de



FAU · Technische Elektronik · Cauerstr. 9 · D-91058 Erlangen

To whom it concerns

Prof. G. Fischer

Lehrstuhl für Technische Elektronik
Friedrich-Alexander-Universität Erlangen-Nürnberg
Cauerstraße 9, D-91058 Erlangen

Tel.: 09131 85-27186
Fax: 09131 302951
E-Mail: fischer@lte.eei.uni-erlangen.de
Web: <http://www.lte.eei.uni-erlangen.de>

Erlangen, 06.08.2009

Confirmation of successful doctoral examination

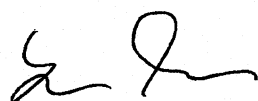
As the first examiner and doctoral adviser I hereby confirm that Mr. Mohsin Nawaz, born 8th August 1981, address Fasanenstr. 181, 82008 Unterhaching/Germany successfully completed his PhD examination. He succeeded in the defend of his thesis "*Low Impedance Wheel Resonators for Low Voltage and Low Power Applications*" on the 17th of July 2009 with a final grade of 1.53 equal to "Gut".

The promotion process will officially finalize with the handover of the doctoral certificate, which can take place after the thesis has been finally given in printed or CD version to the library at University of Erlangen-Nürnberg. Some minor editorial modifications have to be performed before that.

Mr. Nawaz is allowed to use the title "Doctor in Engineering" after the certificate has been handed over, nevertheless he can be addressed in this way from now on.

Details of the promotion process at University of Erlangen-Nürnberg can be viewed here:

<http://www.techfak.uni-erlangen.de/studium/promotion/promotionsverfahren.shtml>


Univ. Prof. Dr.-Ing. Georg Fischer

TUHH

Technische Universität Hamburg-Harburg

School of Electrical and Information Engineering
Studienbereich Elektrotechnik und Informationstechnik

The Hamburg University of Technology awards with this certificate to
Die Technische Universität Hamburg-Harburg verleiht durch diese Urkunde

Mr. / Herrn MOHSIN NAWAZ

born on August 8, 1981, in Lahore, Pakistan
geboren am 08. August 1981 in Lahore, Pakistan

the academic degree of a
den akademischen Grad

MASTER OF SCIENCE (M.Sc.)

after having successfully completed the Master of Science examination according to the
current version of the Examination Regulations for the International Master's Degree
Courses at the Hamburg University of Technology dated September 29, 2004, in the

nach der erfolgreich absolvierten Prüfung zum Master of Science nach der
Prüfungsordnung für die Internationalen Master-Studiengänge an der Technischen
Universität Hamburg-Harburg vom 29. September 2004 in der geltenden Fassung in dem

Master's Degree Course of

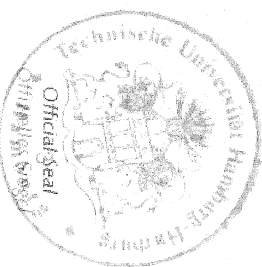
Master-Studiengang

MICROELECTRONICS AND MICROSYSTEMS

Hamburg, February 27, 2007

Hamburg, den 27. Februar 2007

Chairman of the Examination Board
Der Vorsitzende des Prüfungsausschusses



The Dean
Der Leiter des Studienbereichs





**School of Electrical and Information
Engineering**

Certificate

**Studienbereich für Elektrotechnik und
Informationstechnik**

ZEUGNIS



Technische Universität Hamburg-Harburg

**School of Electrical and Information
Engineering**

Mr. MOHSIN NAWAZ

born on August 8, 1981, in Lahore, Pakistan
has successfully completed the

Master of Science Examination

according to the current version of the Examination Regulations for the
Master's Degree Course of

Microelectronics and Microsystems

attaining the overall mark of **VERY GOOD (1.4)**.

Studienbereich für Elektrotechnik und
Informationstechnik

Herr MOHSIN NAWAZ

geboren am 08. August 1981 in Lahore, Pakistan
hat die

Prüfung zum Master of Science

nach der geltenden Prüfungsordnung für den Master-Studiengang

Microelectronics and Microsystems

mit der Gesamtnote **SEHR GUT (1,4)** bestanden.

EXAMINATION SUBJECTS Prüfungsfächer

Microelectronics Mikroelektronik

	ECTS Credits ECTS Punkte	Grade Note	
Electronic Devices Elektronische Bauelemente	3 3	1.7 1,7	good gut
Submicron Devices Submikrometerbauelemente	3 3	1.3 1,3	very good sehr gut
Circuit Design Schaltungsentwurf	4.5 4,5	1.3 1,3	very good sehr gut
Laboratory: Circuit Design - analog Praktikum: Schaltungsentwurf analog	2.5 2,5	1.3 1,3	very good sehr gut
Laboratory: Circuit Design - digital Praktikum: Schaltungsentwurf digital	2.5 2,5	1.3 1,3	very good sehr gut
Microelectronic Materials Werkstoffe in der Mikroelektronik	3 3	1.3 1,3	very good sehr gut
2D Microelectronic Systems 2D-Systeme in der Mikroelektronik	3 3	1.7 1,7	good gut
Optoelectronics II Optoelektronik II	3 3	1.3 1,3	very good sehr gut

Microsystems Mikrosysteme

Microsystems Engineering Mikrosystemtechnik	3 3	2.0 2,0	good gut
Microsystems Technologies Mikrosystemtechnologie	3 3	1.3 1,3	very good sehr gut
Laboratory: Semiconductors and Microsystems Technologies Praktikum: Halbleiter- und Mikrosystemtechnologie	3.75 3,75	1.0 1,0	very good sehr gut
Laboratory: Microsystems Design Praktikum: Mikrosystementwurf	3.75 3,75	1.7 1,7	good gut

Communication Kommunikation

Fiber and Integrated Optics Faseroptik und integrierte Optik	3 3	1.3 1,3	very good sehr gut
Optical Communications Optische Nachrichtentechnik	4.5 4,5	1.3 1,3	very good sehr gut
Satellite and Mobile Communications Satelliten- und Mobilkommunikation	4.5 4,5	1.0 1,0	very good sehr gut
Digital Filters Digitale Filter	3 3	2.7 2,7	satisfactory befriedigend

Computer Science and Signal Processing

Computervissenschaft und Signalverarbeitung

Digital Signal Processors Digitale Signalprozessoren	3 3	4.0 4,0	sufficient ausreichend
Digital Audio Signal Processing Digitale Audio-Signalverarbeitung	4.5 4,5	2.3 2,3	good gut

Business and Management Wirtschaft und Management

International Business Management Internationale Wirtschaftskunde	2 2	-- --	passed bestanden
International Law Internationales Recht	2 2	-- --	passed bestanden
Project Management Projektmanagement	3 3	-- --	passed bestanden

Complementary Courses Ergänzungskurse

German Language I Deutsch als Fremdsprache I	4 4	-- --	passed bestanden
German Language II Deutsch als Fremdsprache II	4 4	-- --	passed bestanden

Successful participation Erfolgreiche Teilnahme

Subject-Related Seminar Fachspezifisches Seminar

Project Projektarbeit

Top-Level Design Completion of the ECOC4 A/D Converter

Vervollständigung des Entwurfs für den ECOC4-A/D-Wandler auf höchster Ebene

ECTS Credits
ECTS Punkte

Grade
Note

15

15

1.0

1.0

very good

sehr gut

Master thesis Master-Thesis

Integrated Filter Design Concepts

GPS Front End Module – Mobile Phone Applications

Entwurf integrierter Filter für GPS Frontend-Module in Mobiltelefonen

30

30

1.3

1,3

very good

sehr gut

Last examination performance on February 27, 2007

Letzte Prüfungsleistung am 27. Februar 2007

Overall mark:

1.4 VERY GOOD

Gesamtnote:

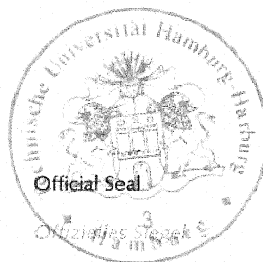
1,4 SEHR GUT

Hamburg, February 27, 2007

Hamburg, den 27. Februar 2007

Chairman of the
Examination Board

Der Vorsitzende des
Prüfungsausschusses



The Dean

Der Leiter des
Studienbereiches

An Overall Mark of / Gesamtnote: Bei einem Durchschnitt von

1.0 to including 1.5:

very good

1.0 bis einschließlich 1.5:

sehr gut

1.6 to including 2.5:

good

1.6 bis einschließlich 2.5:

gut

2.6 to including 3.5:

satisfactory

2.6 bis einschließlich 3.5:

befriedigend

3.6 to including 4.0:

sufficient

3.6 bis einschließlich 4.0:

ausreichend

An overall assessment "Passed with distinction" is awarded for outstanding results (average 1.3 or better).

Bei überragenden Leistungen (Durchschnitt 1.3 oder besser) wird das Gesamtnote „Mit Auszeichnung“ verliehen.

German grading
scale

1.0 very good (+)
1.3 very good
1.7 good (+)
2.0 good
2.3 good (-)
2.7 satisfactory (+)

ECTS
grading
scale

A+
A
B+
B
C+
C

German grading
scale

3.0 satisfactory
3.3 satisfactory (-)
3.7 sufficient (+)
4.0 sufficient
4.3 not passed
5.0 not passed

ECTS
grading
scale

D+
D
E+
E
FX
F

Deutsches
Notenschema

1.0 sehr gut (+)
1.3 sehr gut
1.7 gut (+)
2.0 gut
2.3 gut (-)
2.7 befriedigend (+)

ECTS
Notenschema

A+
A
B+
B
C+
C

Deutsches
Notenschema

3.0 befriedigend
3.3 befriedigend (-)
3.7 befriedigend (+)
4.0 befriedigend
4.3 nicht bestanden
5.0 nicht bestanden

ECTS
Notenschema

D+
D
E+
E
FX
F



Ghulam Ishaq Khan Institute of Engineering Sciences and Technology

On the recommendation of the Faculty and the Governing Council

Mohsin Nawaz

is admitted to the degree of

Bachelor of Science

in

Electronic Engineering

in a congregation held at Topi-Swabi on

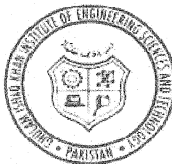
May Thirty First, Year Two Thousand Three

A handwritten signature in black ink, appearing to be 'J. N. A.', written over a horizontal line.

**PRESIDENT
BOARD OF GOVERNORS**

A handwritten signature in black ink, appearing to be 'M. N. A.', written over a horizontal line.

RECTOR



غلام اسحاق خان انسٹیٹیوٹ برائے انجینئرنگ سائنسز و ٹیکنالوجی

Ghulam Ishaq Khan Institute of
Engineering Sciences and Technology

02582

TRANSCRIPT

Students Name: **MOHSIN NAWAZ**

Registration No: **990075**

Degree (Awarded): **BS in Electronic Engineering**

Date of Award: **May 31, 2003**

Semester	Year	Course No	Course Title	CH	Grade	SCH	SGP	SGPA	CCH	CGP	CGPA
Fall	1999	CSE101	Introduction to Computing and Programming	3	B						
		HM101	English and Study Skills	3	B						
		MM101	Introduction to Engineering Materials	4	A						
		MT101	Calculus I	3	B						
		PH101	Mechanics	4	B-						
						17.00	53.68	3.16	17	53.68	3.16
Spring	2000	HM102	Technical Report Writing	3	B-						
		ME101	Engineering Graphics	2	B						
		ME102	Workshop Practice	1	B						
		MM102	Industrial Chemistry	3	B+						
		MT102	Calculus II	3	B+						
		PH102	Electricity and Magnetism	4	B+						
						16.00	50.31	3.14	33	103.99	3.15
Fall	2000	CSE221	Data Structures and Algorithms	3	B						
		EE211	Circuit Analysis I	4	B+						
		EE221	Logic Design	4	A-						
		HM211	Pakistan and Islamic Studies	3	D+						
		ME231	Thermodynamics	3	B+						
		MT201	Differential Equations	3	B-						
						20.00	58.99	2.95	53	162.98	3.08
Spring	2001	CSE211	Introduction to Operating Systems	4	W						
		EE212	Circuit Analysis II	3	A						
		EE222	Computer Architecture	4	A-						
		EE231	Electronics I	4	A						
		ME291	Engineering Economy	3	A-						
						14.00	53.69	3.84	67	216.67	3.23
Fall	2001	EE313	Electric Machines	3	A-						
		EE313L	Electric Machines Lab	1	A						
		EE323	Microprocessor Interfacing	3	B-						
		EE323L	Microprocessor Interfacing Lab	1	A						
		EE351	Signals and Systems	3	A						
		EE351L	Signals and Systems Lab	1	B+						
		EE424	Introduction to ASIC Design	3	B+						
		ES202	Engineering Statistics	3	B-						
		HM321	Sociology and Human Behaviour	3	C+						
						21.00	67.34	3.21	88	284.01	3.23
Spring	2002	EE332	Electronics II	3	B+						
		EE332L	Electronics II Lab	1	A						
		EE333	Solid State Electronics	3	A						
		EE341	Control Systems	3	A-						
		EE341L	Control Systems Lab	1	A-						
		EE371	Electromagnetics	3	A						
		HM322	Ethical and Legal Dimensions of Engineering	3	C+						
						17.00	59.66	3.51	105	343.67	3.27
Fall	2002	EE452	Digital Signals Processing	3	A-						
		EE452L	Digital Signals Processing Lab	1	A-						
		EE461	Communication Systems	3	A-						
		EE461L	Communication Systems Lab	1	A						
		EE481	Senior Design Project (Part I)	3	A						
		ES451	Instrumentation	3	B-						
		ES451L	Instrumentation Lab	1	A						
		ME494	Total Quality Management	3	B-						
						18.00	61.71	3.43	123	405.38	3.30
Spring	2003	EE434	Power Electronics	3	A-						
		EE444	Digital Control Systems	3	A						
		EE474	Microwave Engineering	3	A						
		EE482	Senior Design Project (Part II)	3	A						
		ME496	Project Management	3	C+						
						15.00	54.00	3.60	138	459.38	3.33

A. H. 5-21
Controller of Examinations

ACADEMIC SETUP

The Institute follows the Semester System. An academic year comprises of two semesters of sixteen working weeks each and a nine week summer semester. The last week of a semester is allocated to the final examinations. The number of lecture hours or laboratory work per week determines the credit hours allocated to a course. One academic hour of lecturing per week makes one credit hour and three hours of laboratory work constitutes one credit hour. The normal load for a regular semester is 15-18 credit hours.

ABBREVIATIONS

CH	Credit Hours	GRD	Grade
SCH	Semester Credit Hours	SGP	Semester Grade Points
CCH	Cumulative Credit Hours	CGP	Cumulative Grade Points
SGPA	Semester Grade Point Average	CGPA	Cumulative Grade Point Average
RPT*	Repeated Course (Only the last attempted RPT credits are counted while calculating the GPA). * is a reference.		
SBT(x)+	The course is registered as a substitute for the course (x) earlier attempted with the approval of the Doan. The credits of the course (x) are not counted while calculating the GPA. + is a reference.		
OPT+	This indicates optional courses not counted in GPA. ++ is a reference.		

GRADES AND GRADE-POINTS

Students are awarded grades A, A-, B+, B, B-, C+, C, C-, D+, D, F, I, W, S, U and E for each course. These grades indicate the following levels of performance:

A	Excellent	S	Satisfactory completion
B	Good	U	Unsatisfactory completion
C	Adequate	W	Withdrawn
D	Minimum Acceptable	E	Exempted
F	Failure, implying that the student must repeat the entire course to receive any credit	I	Incomplete, the student has to complete the requirement within the specified time

Each grade is assigned Grade Points per Credit (GPC). The following table indicates the gradation from excellent to failure.

A	4.00 (Maximum)	D+	1.33
A-	3.67	D	1.00
B+	3.33	F	0.00
B	3.00	W	Nil Credit, Not counted in the calculation of GPA
B-	2.67	S	Nil Credit, Not counted in the calculation of GPA
C+	2.33	U	Nil Credit, Not counted in the calculation of GPA
C	2.00	I	Nil Credit, Not counted in the calculation of GPA
C-	1.67	E	Nil Credit, Not counted in the calculation of GPA and the student is not required to complete the course as part of the degree requirement

ACADEMIC STANDING

The academic standing of a student is referred to in terms of his/her Grad Point Average (GPA). It is calculated by dividing the total number of grade points earned by the total number of credit hours registered. Following is a list of academic standing awarded to a student on the basis of his/her GPA

Highest Distinction	Granted to a student, with a normal course load per semester, whose GPA is between 3.90 and 4.00, inclusive.
High Distinction	Granted to a student, with a normal course load per semester, whose GPA is between 3.75 and 3.89, inclusive.
Distinction	Granted to a student, with a normal course load per semester, whose GPA is between 3.50 and 3.74, inclusive.
Good	The academic performance of a student is considered good if his/her semester GPA is between 3.00 and 3.49, inclusive.
Satisfactory	The academic performance of a student is considered satisfactory if his/her semester GPA is between 2.00 and 2.99, inclusive.
Caution	A cautionary letter is issued to a student whose Semester GPA exceeds 2.00 but Cumulative GPA remains below 2.00. The Student is advised to improve his cumulative GPA.
Probation	A student is placed on probation if his/her Semester GPA falls below 2.00. A student on probation is normally advised to register in that semester for lesser number of courses than the normal load per semester.
RTDCx	The case of a student whose semester GPA remains below 2.00 for two consecutive semesters is Referred To the Deans Committee (RTDC) for further evaluation. RTDC1 means referred for the first time, RTDC2 means referred for the second time and so on.
Dismissed	Consequent upon the decision of the Governing Council (Deans Committee) with the approval of the Rector, a student with RTDCx is academically dismissed from the Institute.
Passed	A student is declared passed if he/she successfully completes all the academic requirements set for a Degree from the Institute.

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E-mail Address: coe@giki.edu.pk, web site: www.giki.edu.pk

Zeugnis für Masterarbeit

Name: **Mohsin Nawaz**
Geburtsdatum: **08.08.1981**
Beschäftigungszeit: **01.08.2006 - 28.02.2007**
Bereich: **Automotive, Industrial & Multimarket –
Layout/CAD/Innovation/Interfaces FE/BE**

Herr Nawaz hat im Rahmen seiner Masterarbeit GPS Bandpassfilter für mobile Anwendungen entwickelt. Die Filter sollten geringe Durchgangsdämpfung bei gleichzeitig hoher Unterdrückung der Mobilfunkfrequenzen erreichen und sowohl einphasige als auch differentielle Schnittstellen realisieren. Mit der bei Infineon Technologies verfügbaren Technologie zur passiven Integration wurden Muster dieser Filter hergestellt. Im Vergleich zum Stand der Technik zeigten die realisierten Muster herausragende Filtereigenschaften. Dies konnte Herr Nawaz durch eine neuartige Filtertopologie mit magnetischer Kopplung von Resonanzkreisen erreichen.

Herr Nawaz hat eine sehr gute Auffassungsgabe und kann auftretende Probleme schnell und sicher lösen. Er arbeitete jederzeit umsichtig, sorgfältig und rationell. Die Arbeitsleistung von Herrn Nawaz war jederzeit durch höchste Zuverlässigkeit und Verlässlichkeit geprägt. Er identifizierte sich mit seinen Aufgaben und arbeitete mit sehr viel Engagement und Eigeninitiative. Auch bei sehr hoher Belastung erzielte Herr Nawaz sehr gute Arbeitsergebnisse. Besonders hervorzuheben ist seine Urteilsfähigkeit, die ihn auch in schwierigen Lagen zu einem eigenständigen, abgewogenen und zutreffenden Urteil befähigt. Herr Nawaz besitzt sehr gute Fachkenntnisse.

Herr Nawaz hat die ihm übertragenen Aufgaben stets zur vollsten Zufriedenheit erfüllt. Das persönliche Verhalten war vorbildlich.

Wir wünschen Herrn Nawaz für sein Studium und für seinen weiteren Berufs- und Lebensweg alles Gute und weiterhin viel Erfolg.

München, 28.02.2007
Infineon Technologies AG


i.V. Gerhard Lohninger
IFAG AIM DS D


i.A. Annett Gallasch
(access AG)

Praktikantenzeugnis

Name: **Mohsin Nawaz**

Geburtsdatum: **08.08.1981**

Beschäftigungszeit: **15.10.2005 – 31.01.2006** Praktikant
01.02.2006 – 30.04.2006 Werkstudent

Bereich: **Discrete Semiconductors, Innovation**

Tätigkeit:

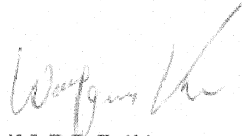
- Entwicklung von Programmen zur Erzeugung von Spulen und Transformatoren im Ansoft HFSS Feldsimulator (3-dimensional, Programmiersprache Visual Basic) in einer 5-Lagen Metallisierung
- Optimierung von MatLab Programmen (Fit-Algorithmus, Datenhandling, graphische Ausgabe) zur Entwicklung von skalierbaren Spulenmodellen
- Entwicklung von skalierbaren Spulenmodellen durch Anwendung der erstellten HFSS und MatLab Programme und Integration dieser Modelle in den Schaltungssimulator ADS

Herr Nawaz hat eine sehr gute Auffassungsgabe und kann auftretende Probleme schnell und sicher lösen. Er arbeitete jederzeit umsichtig, sorgfältig und rationell sowie stets sehr zuverlässig und genau. Herr Nawaz identifizierte sich mit seinen Aufgaben und arbeitete mit sehr viel Engagement und Eigeninitiative. Auch bei sehr hoher Belastung erzielte er sehr gute Arbeitsergebnisse. Besonders hervorzuheben sind seine ausgezeichneten analytischen Fähigkeiten und seine sehr guten Fachkenntnisse. Herr Nawaz hat die ihm übertragenen Aufgaben stets zur vollsten Zufriedenheit erfüllt. In kurzer Einarbeitungszeit hat er sich selbstständig die notwendigen Kompetenzen für die Arbeit mit den neuen Programmen angeeignet und sämtliche Ziele wie geplant erreicht. Das persönliche Verhalten war jederzeit vorbildlich.

Fehlzeiten: **Keine Urlaubstage. Keine Krankheitstage.**

Wir bedanken uns für die Tätigkeit und wünschen ihm für den weiteren Lebensweg viel Erfolg und alles Gute.

München, 30.04.2006
 Infineon Technologies AG


 AIM DS D IN
 Wolfgang Klein


 i. V. access AG
 (Andreas Stangl)

List of Publications

F. Schoen, M. Nawaz, ***“Temperature Compensation in Silicon-Based Micro-Electromechanical Resonators”***, IEEE-MEMS 2009, Sorrento-Italy, January 25-29, 2009.

“The influence of local doping on the resonant frequency of MEMS Resonators and its temperature dependency” – Submitted to the IOP Journal of Micromechanics and Microengineering

“MEMS resonators suitable for Local Oscillators of GSM for Mobile Applications” – Scheduled for IEEE Journal of Microelectromechanical Systems

List of Patents

“RF-MEMS Resonator Device” – Applied

“Temperature Compensation of MEMS Devices Using Oxide Filling Technique” –
Applied

“MEMS Resonator Trimming Using Dedicated Trimming electrodes” – Applied

“Laser Induced Stress for the Trimming of MEMS Devices” – Applied