

**Report –
Sabbatical at the CNU
(Chungnam National University)
www.cnu.ac.kr
Dep. o. Mechatronics Eng.,
Prof. Sung-Soo Kim
Daejeon, Rep.Korea
Fall Term 2008**



Prof. Dr. Oskar Wallrapp
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Faculty Report December 2008

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1 Cungnam National University (CNU), Daejeon, Korea



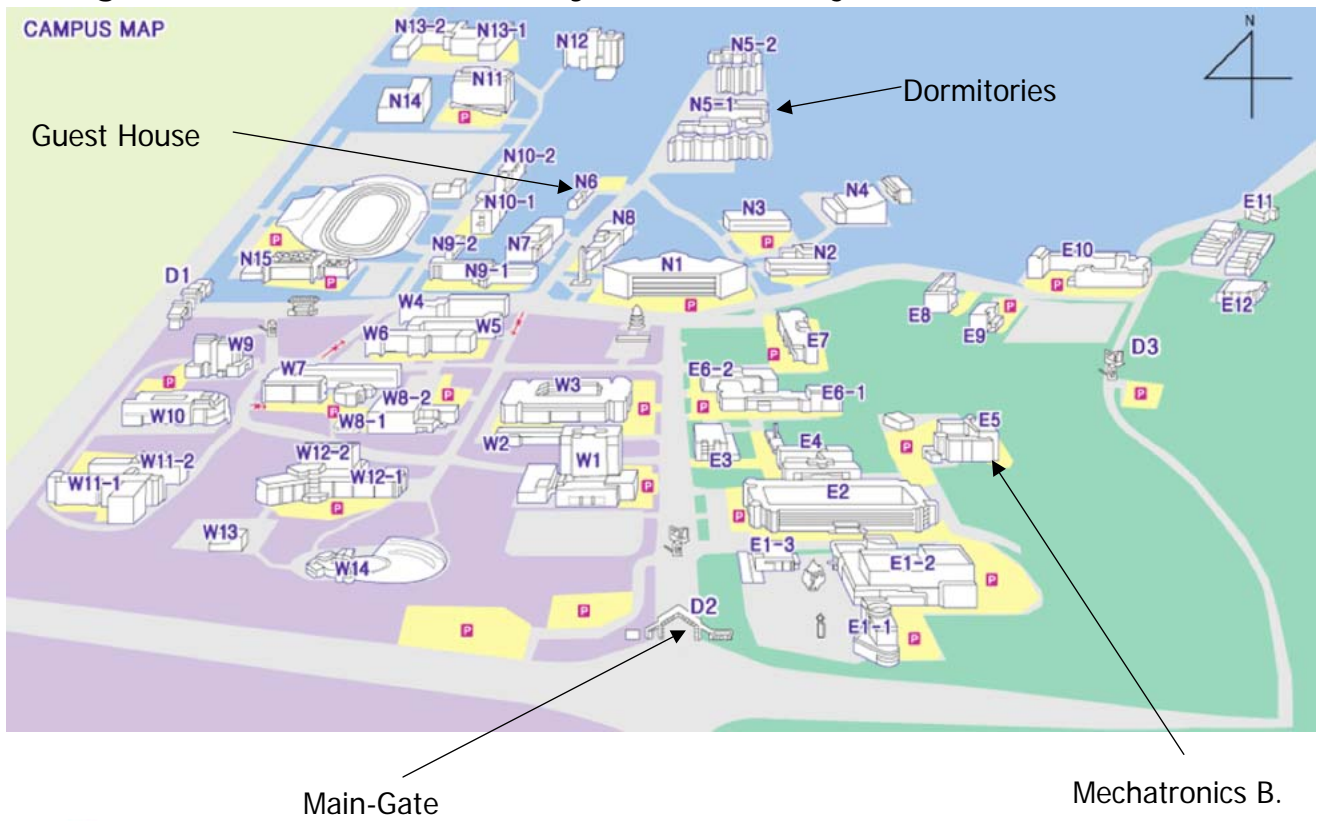
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Cungnam National University (CNU), Daejeon, Korea



Cungnam National University (CNU), Daejeon, Korea



Mechatronics B.



Student Enrolled by Colleges and Graduate Schools

Classification		Quota	Actual No.	
			Enrolled	Actual
Colleges	Humanities	2,028	2,562	1,971
	Social Sciences	1,320	1,963	1,361
	Natural Sciences	3,520	4,128	2,982
	Econ.&Management	1,920	3,283	2,156
	Engineering	5,280	8,290	5,278
	Agriculture & Life Science	1,880	2,533	1,642
	Law	400	663	439
	Pharmacy	160	193	162
	Medicine	680	739	724
	Human Ecology	390	607	513
	Fine Arts & Music	680	813	652
	Veterinary Medicine	240	212	176
	Sub-total	18,498	25,986	18,056
Graduate School	Master	1,026	2,080	1,868
		Ph.D.	394	1,284
	Graduate School of Business Administration	100	280	225
	Graduate School of Education	247	775	710



2 Department of Mechatronics Engineering



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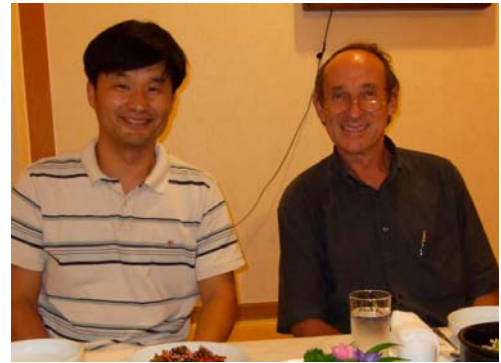
Dean Coll.of Eng.



Das Kollegium mit Dean of Coll.of Eng., Prof. Kwan

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Mein Arbeitszimmer (522), zusammen mit Research-Prof. Kwon

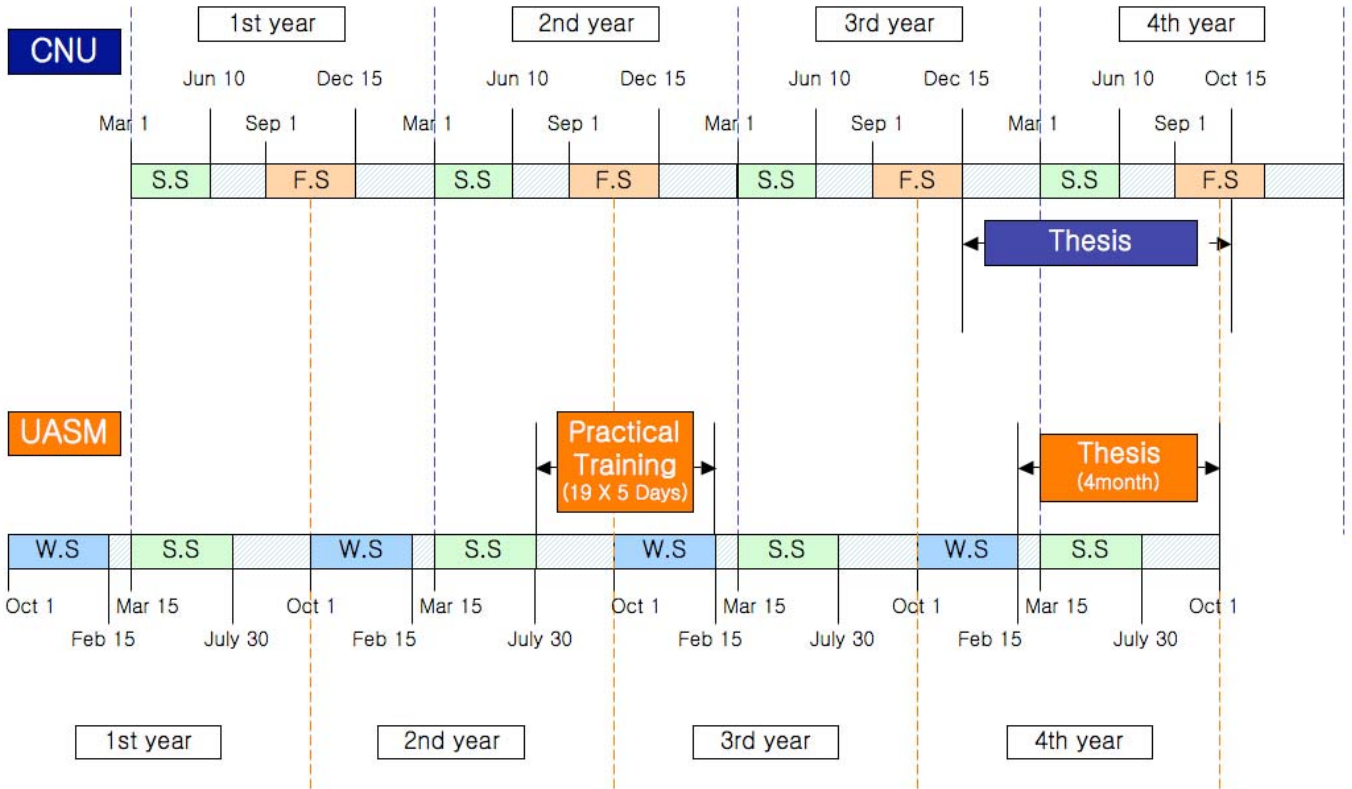


3 Curriculum Mechatronics Courses (BSc, MSc)

Academic Calendar of 2008
Academic regulation
Undergraduate Schools
Graduate School
Professional Graduate School
2008

Month	Date	
	1-12	Course Registration for Spring Semester
February	25-29	Tuition Payment Due
	25	Winter Graduation Ceremony
March	1	Independence Movement Day*
	3	First Day of Spring Semester and Entrance Ceremony for Freshmen
	3-7	Change/Cancel of Courses
April	14-18	Midterm Examination
	5	Children's Day*
May	21-23	Registration for Summer Session
	25	Fifty-sixth Anniversary of the University Foundation
	6	Memorial Day*
June	13-19	Final examination
	20	Summer Break and Summer Session Begins
	15	Summer Session Ends
July	17	Constitution Day*
	4-7	Course Registration for Fall Semester
August	15	Independence Day*
	18-22	Tuition Payment Due
	22	Summer Graduation Ceremony
	25	Fall Semester Begins
	25-29	Change/Cancel of Courses
September	13-15	Chusok (Autumn Harvest Festival)*
October	3	National Foundation Day*
	6-10	Midterm Examination
November	10-12	Course Registration for Winter Session
	3-9	Final Examination
December	10	Winter Break and Winter Session Begins

CNU-UASM Capstone Design Plan



Bachelor (undergraduate courses), 4 Years

학기 학년	구분	교과목번호	교과목명		폐지	학점 시수
			국문	영문		
4-1	전공	20603	제어공학2	Control Engineering 2		3-3-0
	전공	24156	창의적로봇설계및제어	Creative Robot Design and Control		3-2-2
	전공	24158	최신DSP응용설계	DSP-Based System Design		3-2-2
	전공	24159	생산지향설계	Design for Manufacture		3-2-2
	전공	27019	미래설계상당 7	Counseling for Future Planning 7		0-0-0
	전공	27347	Design Project1	Design Project1		3-2-2
	전필	27348	현장실습	Field Practice		0-0-4

Fourth Year, FS

	hours (60 min)		
	Undergraduate Bachelor course	Graduate Master's course	Graduate Doctoral course
Credits	130	24	36
Years	4	2	2

* Note: Required credits for Medicine, Pharmacy and Veterinary Department are 160 credits.

CP
Practical work

Required credits per semester

A. Undergraduate

- Maximum course credits per semester are 18
- Students whose grade average in the previous semester was B or above may take courses worth of 21 credits. For students with a grade average of A, the limit is up to 24 credits.

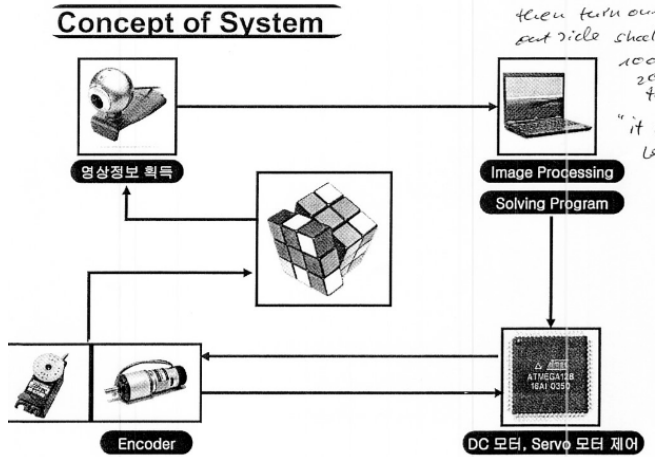
B. Graduate

- Limit of course credits per semester is 9 for master students and 12 for doctoral students.
- If the major is different from the previous degree program, the students have to take 9 credits of prerequisite courses for two years.
- In short, master students and doctoral students can take 12 credits and 15 credits respectively including their 3 credits of prerequisite course per semester.

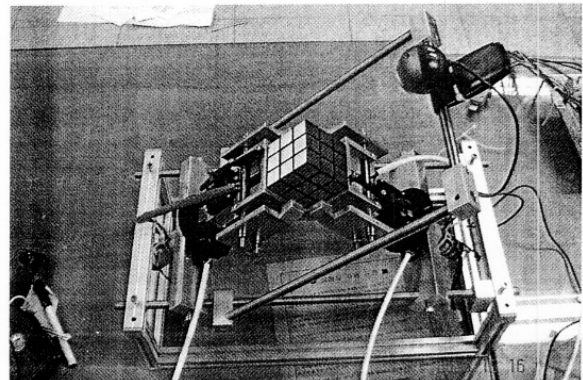
BA = Design Project (1 Year) done in the labs, in groups of 2 or 3 students

Subject given by the professors or students

z.B. Development of Robot for Solving 3x3x3 Rubik's Cube



Rubik's Cube Solving Robot



Siehe auch, wallrapp/CNU-Report.html



Master (graduate courses), 2 Years

Major	No.	Subject		Units
		Korean	English	
	47832	제어특수연구 1	Special Topics in Control 1	3-3-0
	47833	제어특수연구 2	Special Topics in Control 2	3-3-0
	47834	지능제어	Intelligent Control	3-3-0
	47835	진동특론	Advanced Vibration	3-3-0
	47836	차량동역학	Vehicle Dynamics	3-3-0
	47837	차량메카트로닉스	Vehicle Mechatronics	3-3-0
	47838	최적제어	Optimal Control	3-3-0
	47839	컴퓨터그래픽스특론	Advanced Computer Graphics	3-3-0
	47840	CAD특수연구	Special Topics in Computer Aided Design	3-3-0
	47841	CAM특론	Advanced CAM	3-3-0
	47842	DSP 및 응용특론	Advanced DSP and its Application	3-3-0
	47843	PLM	PLM	3-3-0
	47844	전산동역학	<u>Computational Dynamics</u>	3-3-0
	47845	지능로봇 실무	Practices in Intelligent Robot	3-0-6
	47846	확률과 랜덤 프로세스	Probability and Random Process	3-3-0

Siehe auch, wallrapp/CNU-Report.html



4 Research Labs

Neben BA auch MA and PhD-A und Forschungsarbeiten
mit Staatl.Eintr., Militär, Industrie



Labor DAL (Prof. Kim) mit seinen Studenten
->leben fast hier, immer offen, Selbstverwaltung, kein Lab.Ing.



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Seminare (fast jede Woche) wo Prof. und Stud. und Externe berichten



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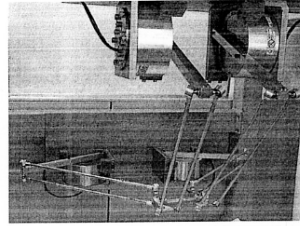
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Developments of force feedback teleoperation systems

Hyokjo Kwon
BK21 Mechatronics Group
Chungnam National University

2008. 10. 9.

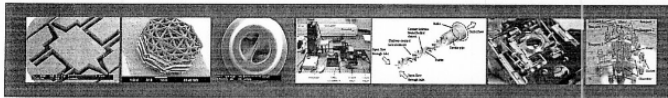
Design, Kinematics, and Control of a High-Speed 4-DOF Parallel Robot



Hee-Byoung Choi
(.)accab)

fa

Development of scaffold using rapid prototyping technology and Its applications



Seung-Jae Lee
October 9, 2008

talk
room, 514-1

BK21 Mechatronics Group, CNU



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mit anschließenden Abendessen (gehört zu den Vortragskosten)

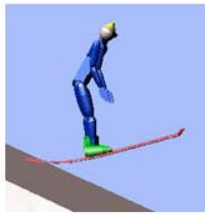


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5 My Lecture: *Flexible Multibody Dynamics*

siehe http://www.fh-muenchen.de/fb06/professoren/wallrapp/e_course_fmdb.html



Flexible Multibody Dynamics (fmbd) Code xxx Prof. Dr.-Ing. Oskar Wallrapp

Mail: Prof. Dr. Oskar Wallrapp

[back to homepage Prof. Oskar Wallrapp](#)

Actual	Lecture Notes	Solutions	Examinations	Tutorials	More Links
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News

[Zurück](#)

Version 10.11.2008

The first lecture will be given at August 25, 13:00 - 16:00, room E5 - 708
Please download lecture notes chapter 0 and 1 first. A both side print is possible.
It is recommended that each student has the notes for the actual lecture.

The last lecture will be held at Tuesday, Nov. 11, 19:00, Room 612

A written exam will be at End of November, organized by Prof. SS Kim. Manuscript and books are allowed!

If you want know more about UAS-München, then see [Wallrapp-UASM-Study3.pdf](#)

Syllabus

[Zurück](#)

21
2008

<i>Keywords</i>	Multibody system, rigid body kinematics and dynamics, joints, force elements, FEM introduction, flexible multibody modelling, mode selection, FEM- MBS interface, MBS applications
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6 Goods of CNU

Was war für mich nachahmenswert!



7 Land und Leute

Extra Bildershow,
wenn Sie es wünschen



8 Zusammenfassung

Der Aufenthalt in Süd-Korea war ein großes Experiment

Land und Leute sind sehr **erlebnisreich**

– sehr **gastfreundlich**

Die Ehrerbietung und Hilfestellung an der CNU war beeindruckend

Ich danke der Fakultät für diese Freistellung

Ich empfehle, alle Kolleginnen und Kollegen sollten ähnliches einmal erleben.

Man bringt viele Erfahrungen mit und schätzt wieder das Zuhause

