Godkjent Rune Sæld

NTNU Trondheim
Norges teknisk-naturvitenskapelige universitet / Norwegian University of Science and Technology

SØKNAD OM FORHÅNDSGODKJENNING AV PLANLAGTE DELSTUDIER I UTLANDET / APPLICATION FOR PRE APPROVAL OF EXCHANGE PERIODS ABROAD
1. prioritet / 1st priority
Forhåndsgodkjenningsskjemaet leveres ditt fakultet / The pre approval form is to be delivered to your faculty

1. PERSONLIGE OPPLYSNINGER / PERSONAL INFORMATION

Etternavn-fornavn-mellomnavn / Last name-first name-middle name **Bjerga, Mikael**	F.dato mnd. år / Date of birth, month year **16.01.1991**
Semesteradresse / Address Trondheim **Smørblomstvegen 44B**	Studentnr. **741429**

Postnr./sted / ZIP-code/Town **7050**	E-post **mikaelbj@stud.ntnu.no**	Telefon / Phone number **47350284**

Studieprogram / Study programme **Datateknikk (Mastergrad 5 år)**	Antall år før utreise / Number of years studied prior to departure **3**

2. FAKULTET GRADEN AVLEGGES VED / FACULTY WHERE THE DEGREE WILL BE TAKEN:

Informasjonsteknologi, matematikk og elektroteknikk

3. PLANLAGT SEMESTER FOR UTREISE TIL UTENLANDSK LÆRESTED / IN WHICH SEMESTER DO YOU PLAN TO GO ABROAD?

Høst 2015

4. HVA PLANLEGGER DU Å TA? (Legg ved eget ark med tilleggsopplysninger hvis nødvendig) WHICH SUBJECTS DO YOU PLAN ON TAKING? (Attach a separate piece of paper with additional information if necessary)

Land / Country **Sør Korea**	Lærested / Institution **Seoul National University**	By / Town **Seoul**	Antall semester / Number of semesters **2**
Emnekode / Subject code	Emnenavn / Subject name		Vekting / Weighting
032.001	**Elementary Korean**		2
032.002	**Intermediate Korean 1**		3
4190.565	**Advanced Data Communication**		3
4190.569	**Advanced Artificial Intelligence**		3
4190.672	**Real-Time Systems**		3

4190.680	Knowledge Representation and Reasoning	3
430.711A	Introduction to Computer Vision	3
493.611	Dynamics and Control og Robot-Environment Interaction	3
710.710	Game Theory	3
Type studiepoeng (f.eks. ECTS, units, credits, osv.) / Type of study credits (e.g. ECTS, units, credits, etc.)		**Credits**

HVILKE EMNER VED NTNU SKAL DETTE ERSTATTE? (F.eks. del av fordypning/obligatoriske emner eller valgfri del av studieprogram) / **WHICH SUBJECTS AT NTNU ARE TO BE REPLACED BY THESE?** (E.g. part of specialization/mandatory subjects, or elective part of study programme)

Studiepoeng / Study credits

Emnekode / Subject code	Emnetittel / Subject title	
	Eksperter i team	7,5
	Ingeniøremne annet studieprogram	7,5
	Komplementæremne	7,5
	Kundestyrt prosjekt	15
TDT4173	**Maskinlæring og case-basert resonnering**	7,5
TDT4265	**Datasyn**	7,5
TDT4280	**Multiagent-systemer og spillteori**	7,5

6. DOKUMENTASJON / DOCUMENTATION

Kryss av /
Check as
applies

**Emnebeskrivelse /
Subject description** ☐

**Pensumlister /
Syllabuses** ☐

**Portfolio, skisser,
tegninger / Portfolio,
sketches, drawings** ☐

Emnebeskrivelser og pensumlister må legges ved søknaden dersom det søkes om godkjenning av emner som skal inngå som del av fordypning i bachelorgrad, eller emner i mastergraden. / If applying for subjects that are to be part of speialization in bachelor's degee, or subjects for master's degree: You need to attach subject descriptions and syllabus.

Sted/dato / Place/date	Studentens signatur / Student signature

Seoul National University, Seoul - Pensum og emnebeskrivelser

Elementary Korean

For the beginning level students 1. to have the ability of Korean language listening, speaking, reading and writing while having lessons in Korean vowels and consonants, vocabulary, grammar and setence structure 2. to be able to form short dialogues and write short sentences 3. to have some knowledge on Korean culture

Pensumliste ikke spesifisert.

Intermediate Korean 1

This class is for foreign students who have completed elementary class. The goal of this class is to obtain practical Korean communication ability for understanding lectures in Korean. (1) By understanding Korean spelling system and phonological rules, you can read or speak Korean sentences fluently. (2) You can understand Korean sentences in various situations.

Pensumliste ikke spesifisert.

Advanced Data Communication

1. Students learn basics of cryptography and network security technologies 2. Students understand network vulnerabilities and countermeasures 3. Students get familiar with state-of-the-art of network security

Pensumliste ikke spesifisert.

Advanced Artificial Intelligence

Provide a research-level introduction to the hot topic of evolutionary developmental neural networks

Pensumliste ikke spesifisert.

Real-Time Systems

By this course, students will be familiarized with fundamental theory and design practice of real-time embedded systems and will be able to apply what they learn to more advanced research topics.

Real-Time Systems-Jane W. S. Liu-Prentice Hall-2000

Knowledge Representation and Reasoning

Understand the main knowledge representations in use today
Understand the inference mechanisms for the representations
Be able to choose a knowledge representation for a problem

Prosjektbasert (KPro)

Russell, S & Norvig, P "Artifcial Intelligence: A Modern Approach", Prentice Hall
Full detail on Bayesian methods for knowledge representation:
Korb, K B & Nicholson, A E "Bayesian Artifcial Intelligence", Chapman & Hall 2004, ISBN 1 58488 387 1

Introduction to Computer Vision

In this course, fundamenals and Applications of Computer Vision and Machine Learning will be covered. Theories and methodologies for the solutions of low-level (early vision) and mid-level (extractin, reconstruction) as well as high-level (reognition, understanding) computer vision problems will be investigaated. Recent trends in computer vision and its applications will also introduced.

Computer Vision: A Modern Approach-D. A. Forsyth and J. Ponce-Prentice Hall-2011
Computer Vision: Algorithms and Applications-R. Szeliski-Springer-2010
Computer Vision: Models, Learning, and Inference-Simon J.D. Prince-Cambridge University Press-2012

Dynamics and Control og Robot-
Environment Interaction

This course covers topics related to operating complex high-DOF robots in human environment. The areas will include dynamics & control of robots with task redundancy, human-like robots, Robot cooperation, Grasping, and Planning.

Pensumliste ikke spesifisert

Game Theory

Over the past few decades the use of formal theoretical methods has become widespread within social science disciplines. Broadly defined these methods include game theory, behavioral game theory (in connection with laboratory experiments), social choice theory, and computational methods. This course focuses on the first of these methods.

Game theory is a set of mathematical tools to model and analyze interdependent decision-making situations. In non-cooperative game models, the decisions by players, as well as outcomes, are interdependent. We call this strategic decision-making. The course will cover mainly the theories, models, and solution concepts of non-cooperative game theory.

What game theory can contribute is a rigorous formalization of such interdependent decision situations and a set of theories on how such strategic decisions are (descriptive) and should be (prescriptive) made. Thus, the largest part of studying game theory is learning and practicing how rational decision-makers should play the games. Solution theories provide solution concepts, such as Nash equilibrium, subgame perfect equilibrium, Bayesian equilibrium, perfect Bayesian equilibrium, sequential equilibrium, and these solution concepts tell us how players do and should play a game.

Learning how to use formal theory as an integrated part of your research is, in many respects, like acquiring a new language. Upon completing this seminar, the student will not be in a position to hang out a shingle as a mathematical game theorist. But he or she should be an intelligent consumer of game-theoretic approaches to politics. By the end of this semester, you will have acquired of the tools necessary to begin using game theory in developing your own research ideas. At a minimum, you should be able to read and have a deeper understanding of some of the important theoretical contributions in your field of interest.

Osborne, Martin J. 2004. An Introduction to Game Theory. Oxford: Oxford University Press.

Kim, HeeMin. 2011. Korean Democracy in Transition. University of Kentucky Press.