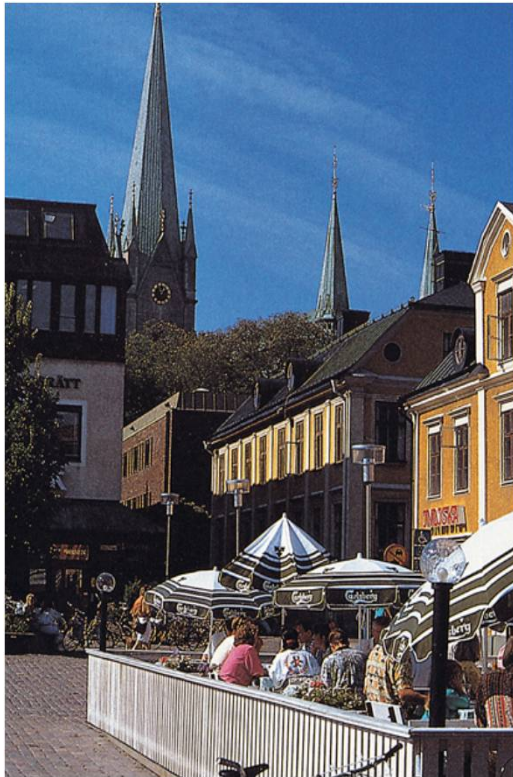


Welcome to

Division of Communications and
Transport Systems

Jan Lundgren
Department of Science and Technology
Linköping University

One University – Two Cities



Linköping



Norrköping

LiU - Four Faculties

Institute of
Technology



Faculty of
Health Sciences



Educational
Sciences



Faculty of Arts and
Sciences



Linköping University

Campus Norrköping

- 5000 students
- 500 teachers and researchers
- All four faculties represented



Engineering School – Department of Science and Technology

- Three divisions
- 1800 students
- 200 faculty members
- 10 study programmes
- 230 courses

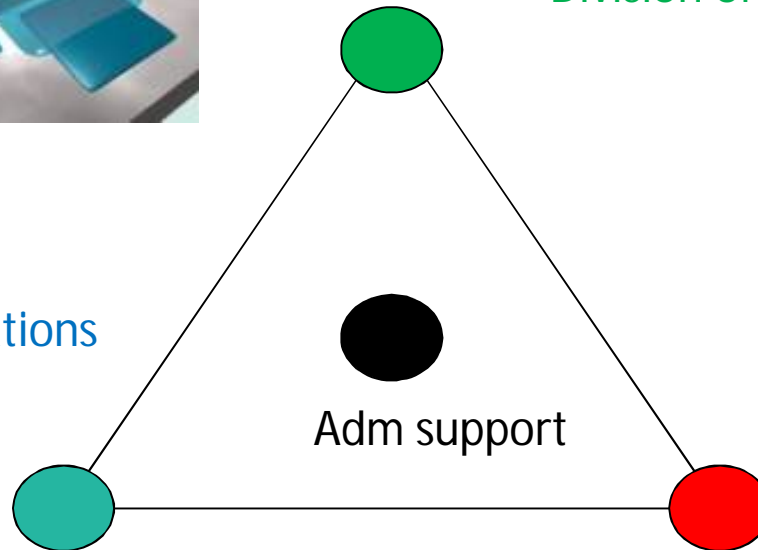
Department of Science and Technology

5



Division of Physics and Electronics

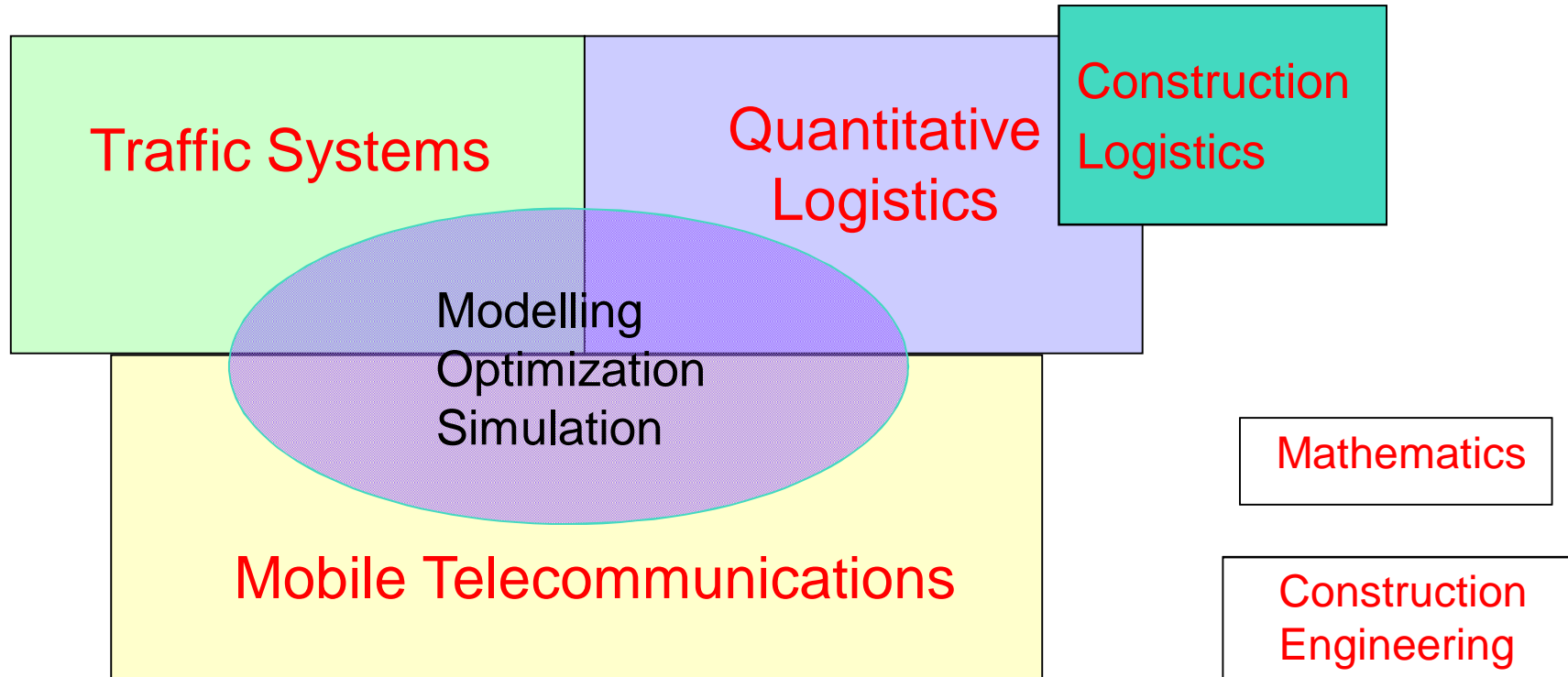
Division of Communications
and Transport Systems



Division of Media and
Information Technology



Division of Communications and Transport System (CTS)



About 30 senior researchers and 25 PhD students

Educational programmes

(with a strong base at the CTS division)

7

- **Communications, Transport and Infrastructure**

Engineering programme, 300 ECTS, 30-60 students



- **Intelligent Transport Systems and Logistics**

Master's programme, 120 ECTS, 10-15 students



- **Civic Logistics**

Bachelor's programme, 180 ECTS, 30 students

- **Air Transportation and Logistics**

Bachelor's programme, 180 ECTS, 30 students

Communications, Transport and Infrastructure (CTI) ⁸

Program Aim

The CTI-engineer should be able to contribute in design, planning and management of the communication and transport systems for the future, especially by using modern information and communication technology.

The CTI-engineer should have good theoretical knowledge on how to model complex communication and transport systems, and have good theoretical and practical knowledge on how to use different engineering tools for analyzing the systems.

Year 1-3: Mathematics, Programming, Physics, Telecommunication, Computer networks, Transport systems and logistics, GIS, Optimization and Simulation.

Year 4-5: Three study profiles:

- Traffic informatics
- Quantitative logistics
- Data and telecommunications

Master thesis

Intelligent Transport Systems and Logistics (TSL)

Master´s programme

10

The TSL Master´s programme includes knowledge and tools for understanding, developing and controlling future transport and logistics systems.

The focus is on

- integration of mobile telecommunication and transport systems
- mathematical modelling for analysis of systems
- both passenger and goods transportation
- road transportation

Curriculum TSL

Semester 1		Semester 2		Semester 3	
ht1	ht2	vt1	vt2	ht1	ht2
Transport and Logistics Systems	Optimization	Traffic Planning and Simulation	Traffic Demand Modelling	Positioning Systems	Analysis of Com and Tp Systems
Traffic Safety Management	Computer Networking	Mobile Communication and Networks		Project Management	
GIS for Transportation		Logistics Networks and Transports	Wireless Communication Systems	Traffic Engineering and Control	Smart Cities
			Logistics Resource Planning	Applied Optimization I	Applied Optimization II
		Semester 4			Logistics in Supply Chains
		vt1	vt2		Planning of Public Transport & Railway Traffic
		Thesis			

mandatory
 elective



The National Postgraduate School in Intelligent Transport Systems

12

Cooperation between ITS Sweden and seven universities



Sponsored by the Swedish Transport Administration and the Swedish Governmental Agency for Innovation Systems (VINNOVA). Linköping University is the coordinator.

Aim:

- Improve the PhD-education through specialised doctoral courses and extended supervision of students
- Promote academic research within the field of ITS relevant for industry and society
- Increase the interest and focus of transportation research and education within the universities
- Establish networks for collaboration both nationally and internationally



TEMPUS and ERASMUS+
Ongoing and Recent Projects
at LiU/ITN/KTS
Ghazwan Al-Haji



ERASMUS+: Master Curricula and Capacity Building in Traffic Safety (MENA-SAFE)

Partner Universities: Sweden, Poland, Spain, Egypt, Jordan, Lebanon

Period: 2015 – 2018

LiU: Project partner Coordinator: Gdansk University of Technology

TEMPUS: Joint Master Curricula in Intelligent Transport Systems – ITS (JOINITS)

Partners: Sweden, Poland, Slovakia, Egypt, Jordan

Period: 2013 – 2016

LiU: Project coordinator

TEMPUS: Master and PhD curricula in Intelligent Transport Systems – ITS (CITISSET)

Partners: Sweden, Poland, UK, Latvia, Ukraine, Russia

Period: 2012 – 2015

LiU: Project partner Coordinator: St Petersburg Univ

In addition KTS has been acting as a coordinator of several TEMPUS projects since 2007

Research in Transportation Communications and Transport Systems (CTS)

