International Otaniemi (INTO)  
developing TKK International Strategy  

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Total of 308 people of whom 16 has more than one degree. Most M.Sc’s from International Programs (master’s or linkage). Share of English speakers among all D.Sc varies 9…18% during the period.
English speaking M.Sc degrees by year

Line is moving average over 2 years.
Percent show the share of Engl speakers among all graduates.
Percents of graduates of Foreign origin are a bit higher (e.g. 2005: 6.9%).
M.Sc Graduates by country 2001-6/2006

Total of 54 countries. China takes 40%.

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M.Sc Degrees by Program

Comm Eng | CS | EE | Ind Man | Forest | Mach | ECE | Chem | Civil | Archit | Gma | Mak | TF | ? | Aut | Maa | Mar

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International Applications to TKK Master’s Programs – on-line 2006

On line Applications to TKK DL 30.1. 2006  
2006 v2005
Communications Engineering 750 462
Electrical Engineering 163
Micro-and Nanotechnology 105
Electrical and Comm Engineering total 1018 53 %
Mobile Computing - Services and Security 411 220
NordSecMob - Security and Mobile Computing 307
Computer Science total 718 37 %
Forest Products Technology 75
Process Systems Engineering 121
Other 196 10 %
Total 1932

The number of Applications is growing. The Web based Applications Process is now fully at use the first time. Year 2005 the on-line Applications process Was piloted.
At least Space Master program DL is at a different time.
Milestones achieved

• We have learned to run International Education Programs
• New International Master’s and doctoral programs are emerging
• Breadth of activity: TKK is as international as Helsinki Metropolitan Area (5...7%)
Models for International Education & Research

People’s view

Foreign M.Sc

Doctoral study Programs

D.Sc (Tech)

Foreign B.Sc

Master’s Programs

M.Sc

Foreign Post Doc

Foreign Professors

Erasmus Student exchange

Linkage Programs

Return

Return

Study time

Research

Education

People’s view
Notes on models

• International Student Exchange is in balance (even a bit intake than what we send) – 300…400 per year
  – Master’s programs have attracted also exchange students
• Master’s Programs (7…9 programs) about 6% of graduates
• Doctoral study – a well working model for research centric labs
• Very few post docs and profs
TKK International Challenges

• As a research partner, TKK is competing among all the best technical Universities in the world for the attention of companies that are in global business.

• International Education markets are emerging – we are encumbered by the no-fees policy
  – E.g. request to run an M.Sc program for a Central Asian country for money had to be turned down

• Are we a Finnish University with some international activity or a University that happens to reside in Finland but that operates in a global framework.
TKK/Industry Collaboration Areas

TKK as a Research Partner

TKK as an Internationalization Partner

Employment

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Data gathering themes from companies

- Employability of graduates (M.Sc and D.Sc (Tech))
- TKK as a Research partner
  - Foreign profs, post docs
  - Competition among Tech Universities from Company point of view
- TKK as a partner in Internationalization
  - Company needs for TKK focus areas
    - on education vs research axis,
    - in terms of areas of engineering and
    - In terms of business functions: R&D, Customer process, Management
  - Volume of International education and research activity
  - Company needs of TKK collaboration in large International Projects with multiple partners
  - Development collaboration in 3rd world countries
  - TKK participation in 3rd task International Activities (Standardisation, Policy: e.g. EU platforms...)

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