



Multimedia study programme (in accreditation)

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Multimedia Curriculums - overview

- **Multimedia communications**
 - 3 years – Vocational higher education (a.k.a. “applied sciences”)
 - Less theoretical topics, more practical
 - Started in 2007

- **Multimedia**
 - 3 years – University (undergraduate) programme
 - More theoretical topics, basis for Masters programme
 - Approved at the University, awaiting approval on national level

- **In preparation**
 - 2 years - Multimedia masters programme



Multimedia



A number of participating institutions:

- **FE** Faculty of electrotechnics
- **FRI** Faculty of computer and information science
- **FDV** Faculty of social sciences

Interdisciplinary curriculum



Combines a number of scientific fields:

- **Fundamentals of mathematics**
- **Programming skills**
- **Knowledge of telecommunication and information sciences**
- **Multimedia systems and architectures**
- **Production and understanding of audio-visual content**
- **Development and setting up of interactive web services**
- **Project management and planning**

Knowledge and skills



Introduction to multimedia systems

Programming basics

Career communications

Communication systems

Mathematics - analysis

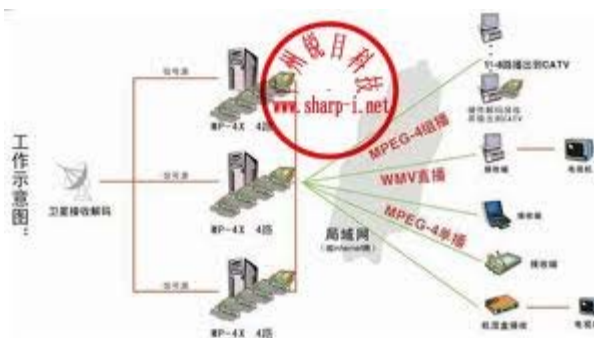
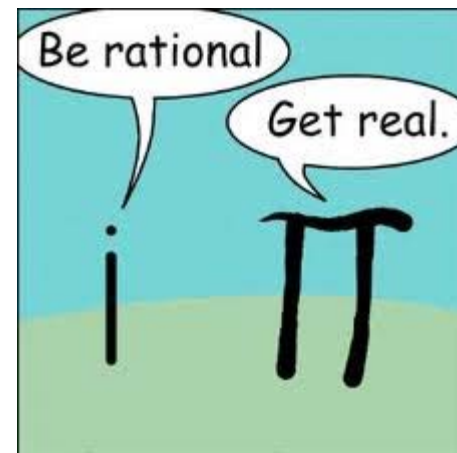
Linear algebra

Technological basics of multimedia

Programming and algorithms

Man-machine communication

Information systems



1st Year topics



Internet systems

Acoustics in communications

Computer graphics and game technologies

Radio-television systems

ICT and society

Design basics

Project management, innovation and team work

Digital signal processing

Mobile systems

1 topic of choice



2nd Year topics



Studio and recording technology

Multimedia content

Web programming

Communications security and content protection

Business intelligence

Non-linear editing and postproduction

Devices and user-interfaces

2 topics of choice

Bachelors thesis

3rd Year topics





Performance and reliability of computer systems

Computer simulations

Speech and image technologies

Telecommunication protocols

Electronic business

Organisation and management

Electronic components and sensors

Any other topic



Topics of choice





Equipment

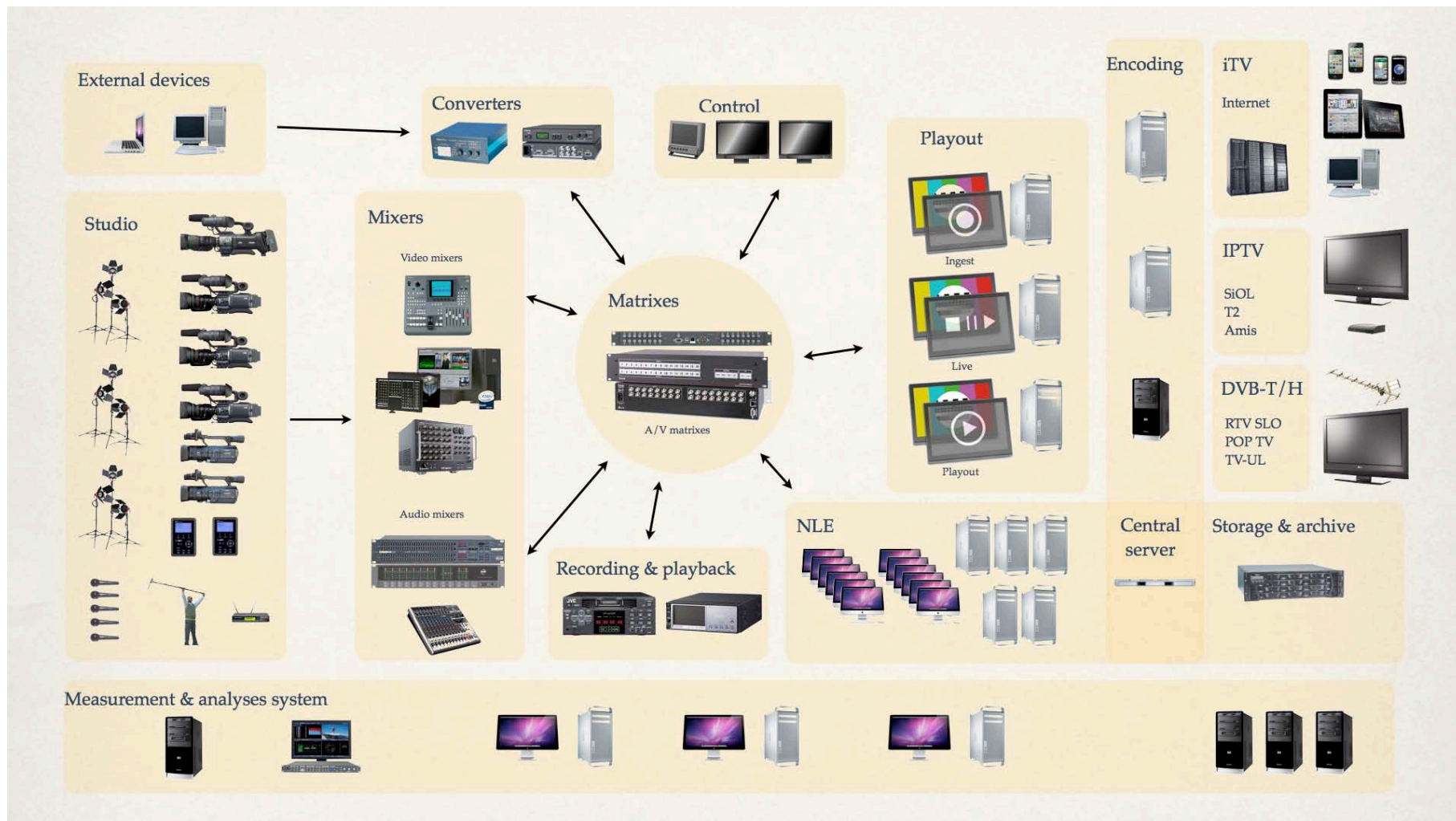
- **Studio equipment**
 - Kameras, mics, lights, speakers, matrixes
 - Virtual studio

- **Broadcasting equipment**
 - Servers, multiplexers, modulators, receivers, transcoders,...

- **Application development**
 - PCs, Mac, smart phones, tablets
 - SW Licences
 - Usability evaluation
 - Eye tracking,...



LTFE MMC – TV production testbed





Comparison with the existing MM comm

- **Similar to Multimedia communications curriculum with the following differences:**
 - **More mathematics**
 - **More computer programming (app development)**
 - **More usability aspects**
 - **No legal aspects (to be included in Masters programme)**
 - **Less design oriented topics**

- **A good basis for masters programme**
 - **201x?**



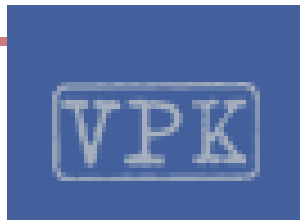
Experience and lessons learned

- **Equipment is expensive**
 - Need enough units for lab work

- **Many assistants for some topics**
 - Studio work vs. tutorial

- **Students are very heterogenous**
 - Engineers vs. Creatives
 - Poor mathematical basis
 - Difficult to attract everybody

- **Industry appreciates knowledge and topics**
 - Many projects
 - Students do find jobs



Employment



Other activities

- Summer camps **Komunikativen.Si**
- OpenLab
- Cisco academy
- Apple academy
- Cyber Reaktors
- Festival of innovative technologies
- InCo Jr. awards





Thank you!