



Technische  
Universität  
Braunschweig

Institut für Betriebssysteme  
und Rechnerverbund



## Android Labor #7

*ἦ καὶ κυανέησιν ἐπ' ὄφρῦσι νεῦσε Κρονίων  
ἀμβρόσιαι δ' ἄρα χαίται ἐπερρώσαντο ἄνακτος  
κρατὸς ἀπ' ἀθανάτοιο μέγαν δ' ἐλέλιξεν Ὀλυμπον.*

Sebastian Schildt, Johannes Morgenroth, Björn Gernert

KickOff 25.04.2014

# Evolution



# Android Lab

- Learning by Doing
- You are expected learn about the Mobile Plattform by yourself and realize a complete software project from plan to finished App
- Regular Meetings
- „Soft-Skills“: Present the results of your project



# Team

## Advisors:

Sebastian Schildt [schildt@ibr.cs.tu-bs.de](mailto:schildt@ibr.cs.tu-bs.de)

Johannes Morgenroth [morgenro@ibr.cs.tu-bs.de](mailto:morgenro@ibr.cs.tu-bs.de)

Björn Gernert [gernert@ibr.cs.tu-bs.de](mailto:gernert@ibr.cs.tu-bs.de)

## Responsible:

Prof. Dr.-Ing. Lars Wolf [wolf@ibr.cs.tu-bs.de](mailto:wolf@ibr.cs.tu-bs.de)

## Mailing List / Website

After today we will set up an mailing list. This will be used for organization purposes and is also open for discussion between participants.

On the website

<http://www.ibr.cs.tu-bs.de/courses/ss14/Inm/index.html>

You will find current appointments and other information

# Semester Plan



- **First:** Definition of your project -> 3-Sheet-Paper (3-SP)
- **Then:** Learn, Work, Regular Meetings
- **Finally:** Final Presentation

# 3-Sheet-Paper

## Defines your project

Contract between contractor (you) und employer (us)

Project-Title

Project Team  
Names & Contact

Motivation, Problem  
Description

Place, Date

Signatures      Signature  
Project Team    Android-Lab

Cover Page

1. Goals
2. Requirements
3. Approach

Page 1

4. Project plan with  
Milestones
5. Possible  
problems and  
countermeasures

Page2



## 3-SP: Goal

### How much to promise?

- If you promise to little, you will not get the “job”.
- Do not promise too much: We will also evaluate against the degree of fulfillment of your 3-SP
  - If you can not fulfill a contract, you risk contract penalties...
  - ...unless you are called Toll Collect, or you build airports in Berlin or belong to the energy or automotive industry...



### Needed Effort or Feasibility unclear?

- The section “problems and countermeasures” allows you to point out possible problems preemptively and plan for alternatives
  - “Maybe the current generation of Smartphone is not fast enough to carry out the calculation of Algorithm X in a reasonable time. In this case calculations will be deferred to a backend server”
  - “If company X will not grant access to the needed data, we can compensate this by doing an estimation based on source Y”

# „Outer“ Project Management

- Every team chooses a *team leader*. This person is responsible for communication with us
- Every team uses the first week of the lab to create an 3-SP
- Every team will put its sourcecode and other materials in GIT Repository provided by us

# „Äußeres“ Projektmanagement

- Regelmäßige Termine im Semester zum Erfahrungsaustausch  
→ siehe Webseite
- Ein verpflichtender Projektreview Termine im Semester dienen dazu, den jeweiligen Status der Projektteams zu demonstrieren
- Am Ende des Semesters ist eine Projektabschlusspräsentation zu halten

# „Inner“ Projekt Management

How you organize work within your group is up to you! We grade based on results.

**Use what you have learned during your studies so far.**

## Projects- What to Do?

You can define your own project for the term. However, you need to meet these requirements:

- Networking needs to be an integral part of your project  
(for example Multicast WLAN WalkieTalkie ora Game with Multiplayer Support on several devices: Yay!  
Single Player Game, which allows you to twitter your Highscore: *LAME!*)
- Not too simple -> We decide

Choose you destiny: **Multiplattform!!**

Free Choice of OS, as long as it is supported by one of the available Hardware Plattformen



# Available Hardware



**2012 Nexus 7**  
All Groups



**Chromecast**  
Limited Amount

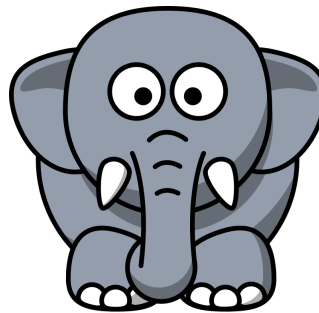


**Sony Smartwatch 2**  
Limited Amount



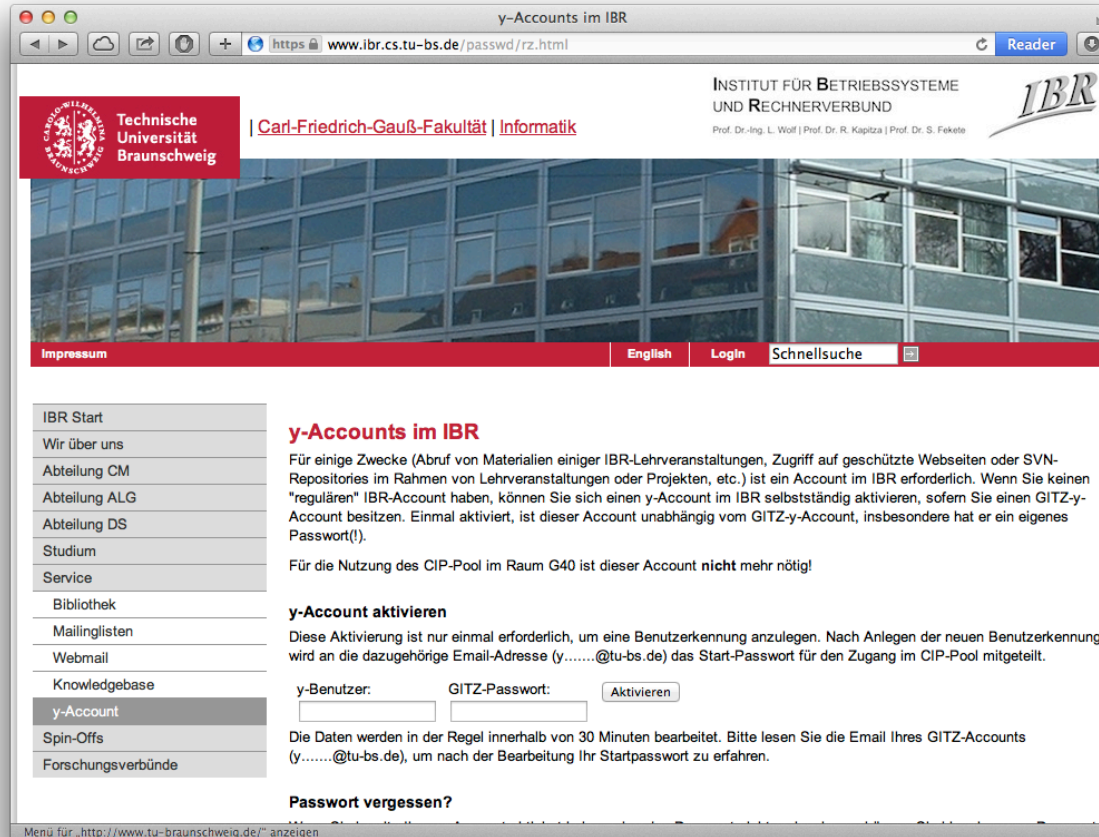
**Nexus 5**  
All Groups

# Groups



# GIT/IBR Accounts

1. If you have a TU-BS y-Nummer, use it to create an IBR Account  
<https://www.ibr.cs.tu-bs.de/passwd/rz.html>



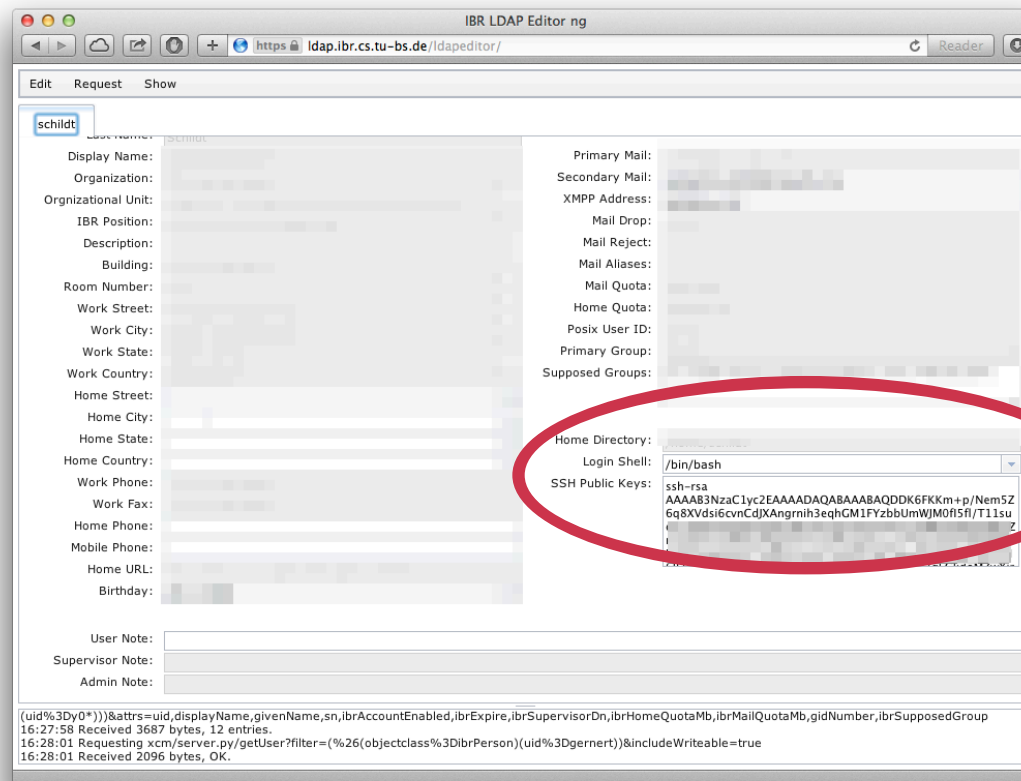
The screenshot shows a web browser window titled "y-Accounts im IBR" with the URL "https://www.ibr.cs.tu-bs.de/passwd/rz.html". The page header includes the logo of Technische Universität Braunschweig and the IBR logo (Institut für Betriebssysteme und Rechnerverbund). The main content area features a sidebar with a menu of links, including "IBR Start", "Wir über uns", "Abteilung CM", "Abteilung ALG", "Abteilung DS", "Studium", "Service", "Bibliothek", "Mailinglisten", "Webmail", "Knowledgebase", "y-Account", "Spin-Offs", and "Forschungsverbünde". The "y-Account" link is highlighted. The main content area has the heading "y-Accounts im IBR" and the following text: "Für einige Zwecke (Abruf von Materialien einiger IBR-Lehrveranstaltungen, Zugriff auf geschützte Webseiten oder SVN-Repositories im Rahmen von Lehrveranstaltungen oder Projekten, etc.) ist ein Account im IBR erforderlich. Wenn Sie keinen 'regulären' IBR-Account haben, können Sie sich einen y-Account im IBR selbstständig aktivieren, sofern Sie einen GITZ-y-Account besitzen. Einmal aktiviert, ist dieser Account unabhängig vom GITZ-y-Account, insbesondere hat er ein eigenes Passwort(!). Für die Nutzung des CIP-Pool im Raum G40 ist dieser Account nicht mehr nötig!" Below this text is a section titled "y-Account aktivieren" with the text: "Diese Aktivierung ist nur einmal erforderlich, um eine Benutzerkennung anzulegen. Nach Anlegen der neuen Benutzerkennung wird an die dazugehörige Email-Adresse (y.....@tu-bs.de) das Start-Passwort für den Zugang im CIP-Pool mitgeteilt." There is a form with fields for "y-Benutzer:", "GITZ-Passwort:", and an "Aktivieren" button. Below the form is the text: "Die Daten werden in der Regel innerhalb von 30 Minuten bearbeitet. Bitte lesen Sie die Email Ihres GITZ-Accounts (y.....@tu-bs.de), um nach der Bearbeitung Ihr Startpasswort zu erfahren." At the bottom of the page, there is a link for "Passwort vergessen?".



# GIT/IBR Accounts

2. With your new IBR Account, add a public SSH public key into our LDAP (needed to access GIT)

<https://ldap.ibr.cs.tu-bs.de/ldapeditor/>



## Registering for Exam: Yes/No/How?

This can not be answered easily!

This course can be taken (at least) by Inf, Winf, IST and ITIS students.

It is a M.Sc. course, but you can import it into your B.Sc. to, depending on your PO

Depending on your situation you might or might not need to register.

The “official” name for this course is either **”Networking und Multimedia Lab”** or **”Mobile Computing Lab”**

Course numbers: INF-KM-023, INF-KM-020

Part of Modules: ET-STD1-22, ET-STD1-10, ET-STD-09, INF-KM-27, ET-STD1-11, INF-KM-11, ET-STD1-01, INF-KM-19, ET-STD1-12

CS students can participate

During the exam registration phase you need to register for this course!  
As this is a M.Sc. module, only master students can register online.

BSc students can “import” the module into their Bachelor using this form

[https://www.tu-braunschweig.de/Medien-DB/fk1/import\\_von\\_masterpruefungen\\_in\\_den\\_bachelorstudiengang.pdf](https://www.tu-braunschweig.de/Medien-DB/fk1/import_von_masterpruefungen_in_den_bachelorstudiengang.pdf)

**or** they can already take this module to use it later for their MSc studies:

[https://www.tu-braunschweig.de/Medien-DB/fk1/zusatzpruefungen\\_allgemein.pdf](https://www.tu-braunschweig.de/Medien-DB/fk1/zusatzpruefungen_allgemein.pdf)

In this case when applying during the registration week (§ 19 APO), you need to bring the appropriate filled form.

CS students will be graded.

In case of questions, contact Rebecca Weidner [r.weidner@tu-bs.de](mailto:r.weidner@tu-bs.de)

# WInfo

WInfo students can participate

Maybe not graded?

In case of questions, [pa-wi@tu-braunschweig.de](mailto:pa-wi@tu-braunschweig.de)

# IST

IST students can participate

IST students can pass or fail  
(but we give a grade anyway)

In case of questions, *maybe* [annika.wilke@tu-bs.de](mailto:annika.wilke@tu-bs.de)

ITIS students can participate

In ITIS-Module is called “Networking und Multimedia Lab” and has the number 3071.

[http://www.itis-graduateschool.de/web/content/lectures-and-modules?view=all\\_lectures](http://www.itis-graduateschool.de/web/content/lectures-and-modules?view=all_lectures)

During the exam registration phase you need to register for this course.

ITIS students will be graded.

In case of questions, contact Madlen Karasch

[Madlen.Karasch@zuv.uni-hannover.de](mailto:Madlen.Karasch@zuv.uni-hannover.de)

# Nächste Termine

Datum	Uhrzeit	Was
25.04.2014	09:00-	KickOff: Overview and Groups
30.04.2014	DEADLINE	Deadline, first version of 3-SP to <a href="mailto:mcl@ibr.cs.tu-bs.de">mcl@ibr.cs.tu-bs.de</a>
02.05.2014	09:00	3-SP finalization, presentation of a small project from last year