A compulsory moment in the course "Wireless Communications" is a conduction of a project work. The purpose of this work is twofold. The first is to train the future engineers with relatively small amount of steering, retrieve information from some research paper within a radio communication related topic and summarize this in a written report. The second purpose is to gain some more experience on giving an oral presentation and on summarizing the project work under some time limitations. Besides, the work should give deeper insights in some radio communication area.

In other words, the project work involves reading and analyzing of a research paper and some of the references therein in the field of wireless communications as well as written and oral presentation of them. The projects are performed individually.

The project work includes:

1. Choice of a research paper
2. Search for most relevant references
3. Reading of the chosen papers
4. Writing of a report about the topic
5. An oral presentation of the work (10 - 15 min)

The project work is compulsory. Well performed project gives extra credits for the written examination. The number of extra credits is up to 4 depending on the quality of the written report and the oral presentation.

**List of the research papers:**

doi: 10.1109/T-WC.2008.071452
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4723358&isnumber=4723313
doi: 10.1109/ISSPIT.2006.270897
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4042339&isnumber=4042195

doi: 10.1109/ECCSC.2008.4611688
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4611688&isnumber=4611637

doi: 10.1109/IFITA.2009.514
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5231525&isnumber=5231498

doi: 10.1109/TWC.2007.05571
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4290027&isnumber=4290009

doi: 10.1109/WICOM.2009.5300850
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5300850&isnumber=5300799

doi: 10.1109/ISWCS.2006.4362361
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4362361&isnumber=4362243

doi: 10.1109/VTCF.2006.115
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4109380&isnumber=4109265

doi: 10.1109/LAWP.2009.2029531
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5196808&isnumber=4808186

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=640080&isnumber=13851

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=190845&isnumber=4874

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=180828&isnumber=4542

doi: 10.1109/PACRIM.1991.160681
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=160681&isnumber=4206

doi: 10.1049/el:19850748
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4251584&isnumber=4251538

doi: 10.1109/ITS.1990.175600
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=175600&isnumber=4464

doi: 10.1109/ICSMC.2009.5345986
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5345986&isnumber=5345886

doi: 10.1109/MILCOM.2005.1606035
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1606035&isnumber=33743

doi: 10.1109/ICTTA.2008.4530253
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4530253&isnumber=4529902

doi: 10.1109/RWS.2008.4463414
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4463414&isnumber=4463396

doi: 10.1109/NORCHIP.2006.329265
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4126968&isnumber=4075696

doi: 10.1109/SARNOF.2004.1302839
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1302839&isnumber=28948

doi: 10.1109/TSP.2009.2019176
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4804743&isnumber=5076146

doi: 10.1109/TSP.2009.2025152
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5072368&isnumber=5286803

doi: 10.1109/SURV.2009.090109
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4796930&isnumber=4796921

doi: 10.1109/TVT.2008.2005267
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4610972&isnumber=4897220

doi: 10.1109/TCOMM.2009.06.070402
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5089517&isnumber=5089481

doi: 10.1109/TVT.2008.915520
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4425798&isnumber=4626110

doi: 10.1109/ISCIT.2006.339919
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4141358&isnumber=4084518

doi: 10.1109/WiCom.2008.302
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4678211&isnumber=4677909

doi: 10.1109/ICNC.2009.480
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5364281&isnumber=5362498

doi: 10.1109/ICPWC.2000.905775
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=905775&isnumber=19560

doi: 10.1109/.2001.979440
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URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1204552&isnumber=27114

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URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=543533&isnumber=11843

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1423523&isnumber=30737

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=656074&isnumber=14306

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4526313&isnumber=4526225

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=396074&isnumber=8977

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1494803&isnumber=32112

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4976199&isnumber=4976181


URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1423584&isnumber=30737

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4022601&isnumber=4022244

doi: 10.1109/26.870015
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=870015&isnumber=18847

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URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=478085&isnumber=10071

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=276392&isnumber=6841

doi: 10.1109/TWC.2006.1611055
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1611055&isnumber=33835

doi: 10.1109/TVT.2007.901962
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4357067&isnumber=4429355

68. Huiming Wang; Xiang-Gen Xia; Qinye Yin; Bin Li; , "A family of space-time block codes achieving full diversity with linear receivers," *Communications, IEEE Transactions on*, vol.57, no.12, pp.3607-3617, December 2009
doi: 10.1109/TCOMM.2009.12.080477
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1611055&isnumber=33835

doi: 10.1109/ICC.1999.767978
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=767978&isnumber=16572

doi: 10.1109/TIT.2002.806116
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1159768&isnumber=25988

doi: 10.1109/5.989869
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=989869&isnumber=21333

72. Mare, K.P.; Maharaj, B.T.; , "Performance Analysis of Modern Space-Time Codes on a MIMO-WiMAX Platform," *Networking and Communications, 2008. WIMOB '08. IEEE International Conference on*
doi: 10.1109/ITCOM.1999.781396
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=781396&isnumber=16955

doi: 10.1109/TCOMM.2009.03.070115
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4799045&isnumber=4799026

doi: 10.1109/MAPE.2007.4393535
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4393535&isnumber=4393433

doi: 10.1109/TWC.2009.090253
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4533672&isnumber=4533036

doi: 10.1109/TVT.2005.853445
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1573873&isnumber=33290

doi: 10.1109/ICC.2008.636
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4533672&isnumber=4533036

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1045192&isnumber=24076

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1285230&isnumber=28569

doi: 10.1109/ICUWB.2008.4653318
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4653318&isnumber=4653270

doi: 10.1109/JSAC.2002.805242
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1097837&isnumber=24076

doi: 10.1109/ICICS.2007.4449837
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4449837&isnumber=4449533

doi: 10.1109/VTC.2001.957172
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=957172&isnumber=20686

doi: 10.1109/VETECS.2007.287
URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4212715&isnumber=4212428


Own ideas for papers are welcomed!

**Choice of scientific papers:**

Send your choice of a paper together with your personal number and name to danvo.danev@liu.se with Subject “TSKS13 - Paper choice”. No two students are allowed to work on the same paper. The first incoming request on a paper counts. The rest of the students will be informed ASAP about the eventual coincidences. Please, check the file "Schedule for the project presentations" for updated information about the selected papers.

**Suggestions for suitable literature sources:**

The IEEE Xplore database (http://ieeexplore.ieee.org/)

**Some tips**

1. Choose a paper as soon as possible
2. Read the paper and find out which are the most important references (up to 5) and retrieve them.
3. Make as soon as possible a disposition of the material.
4. Most of the relevant papers are available through the IEEE Xplore database (http://ieeexplore.ieee.org/)

**Presentations**

The oral presentations will be held on **Mondayay March, 6th from 13.15 to 17 o'clock.**

The written reports have to be sent by e-mail (danvo.danev@liu.se) latest the day before the oral presentation. (Sunday March, 5th)
Choice of a scientific paper for the project work

Title: ______________________________________________________________

Name: ___________________________ PID number_______________________

E-mail: ___________________________