



**Skolan för Elektro- och  
Systemteknik**



**Kontakta oss**

[Aktuella utvärderingar](#)

[Administrera](#)

[Hjälpsida](#)

## Resultat av: Project Course in Signal Processing and Digital Communcations, EQ2430/EQ2440, vt 2012

Status: Avslutad

Publicerad under: 2012-05-21 - 2012-06-05

Antal svar: 10

Procent av deltagarna som svarat: 100%

Kontaktperson: [Per Zetterberg](#)

### 1. The course was useful and interesting. 1. Do not agree at all ... 5. Agree completely.

10 svarande



- Yes Course is Interesting and practical (5)
- This project is the best way to finally apply what we have learned so far. the subjects are interesting and challenging. (5)
- Could learn a lot on theoretical and practical aspects of Signal Processing. It was interesting to work in a team with really good co-operation. Really useful. We could see how a project management will execute, how the processing of real time data is done, what are the problems faced in real time communication etc. (5)

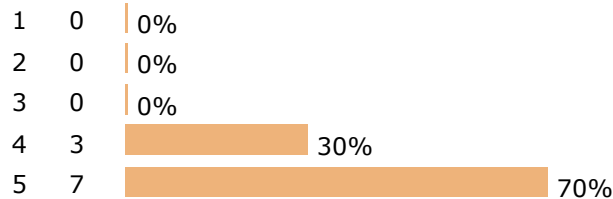
### 2. Is there anything that could be done to make the course more interesting ?

- I think the course is very good.
- I found selection of group is quite unclear and group should decide upon group leader.
- If you can provide the group members with a bit more resources to begin with and some more explanations to get the real picture of the given problem. This will be a good start for the team members.
- Our project is based on a very new concept and there's few research has been done before. If more topics like our project could be offered in the future, I think it can really benefit for the fellow

students.

### 3. The intended course learning outcomes have been fulfilled. 1. Do not agree at all ... 5. Agree completely.

10 svarande



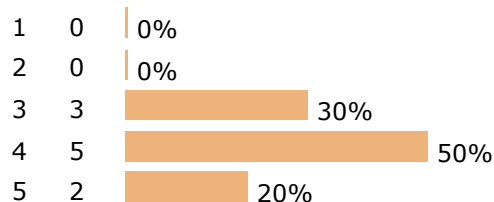
- We could not complete the intended part ie. implementing in C++, because the processing time was too much delayed. If we were able to figure out that the mistake was in storing the full data into the buffer and then processing it before a 2-3 weeks or so, we could easily finish with the desired final result. (4)
- We didn't achieve the final requirement of the project. However, I did improved myself a lot during the process. (4)

### 4. What could be done in order to reach the learning outcomes better?

- Provide a little bit more relavent articles
- In between the course period, if the teachers can really see the level of the group or where they've exactly reached and tell them the part they are going to struck, then it will be really good for them to move on smoothly. In our case, we moved on with the initial mistake of taking the whole buffer at a time and finally we had to drop C++ implementation because of that. This could have avoided.
- I think during some weeks we had gone on the wrong path and wasted a lot of time. Sometimes we were not familiar with the basic concept and we encountered hardware limitations. If more time was offered and more discussion between group mates were held, I think it would be better for us to come up with solutions quickly.

### 5. Your prerequisites were adequate.

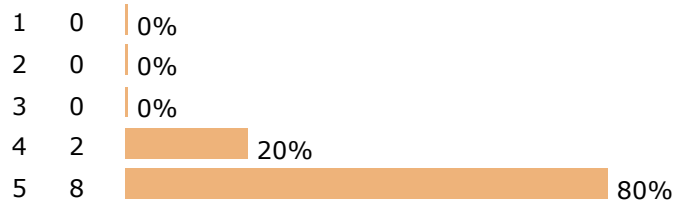
10 svarande



- No adequete C and C++ background. (4)
- we had to learn some things during the project. (4)
- My theory part was not very good as compared to my group mates. Even though I have done my part in C++ well, sometimes I had to struggle a lot to cop up with the theory and then translate the code. I don't have enough hands on experience with Matlab. But whatever I've done in the software part and algorithm development, I am fully satisfied. (4)

## 6. EE has given a correct description of the course - the course is what I expected.

10 svarande



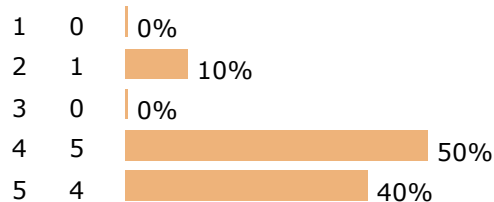
- The course description is really suitable and accurate. The web page is giving clear idea on how the project flow will be. There won't be any confusion in that. (5)

## 7. Is there anything that EE could do to better describe the course to potential students ?

- It will be better if the project are able to watch or to hear
- Project Demonstration to other students..
- Nothing specific. The web page describes almost all aspects really well.
- Provide short introductions for the former projects.

## 8. The information (lectures, web and other) on the project management and requirements was good and enough.

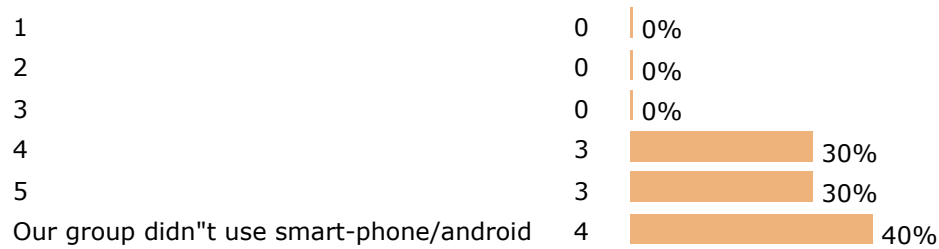
10 svarande



- Maybe it is part of the learning aims of the project, but I had the feeling that we didn't have enough technical informations about the topic that was treated. (2)
- most of us were not really familiar with project management and more info would have been welcomed (for example on how to plan the tasks). (4)
- They are good, but not quite enough. We also had to find out other references, especially as theory developers. (4)
- It was good. (5)

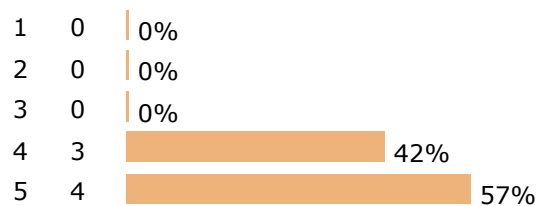
## 9. The lecture on smart-phone/android programming were good.

10 svarande



## 10. The smart-phone/android support was good.

7 svarande

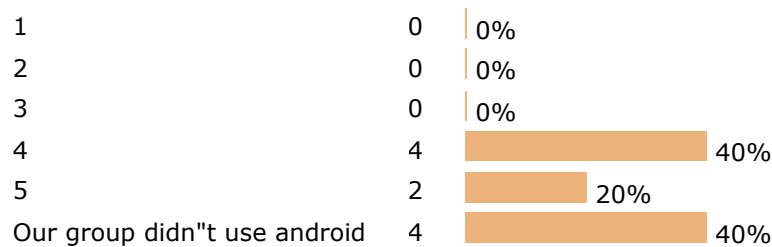


- Our group didnt use Android support. (?)

- Per was able to help us with our issues We did not need to contact martin ohlsson (5)

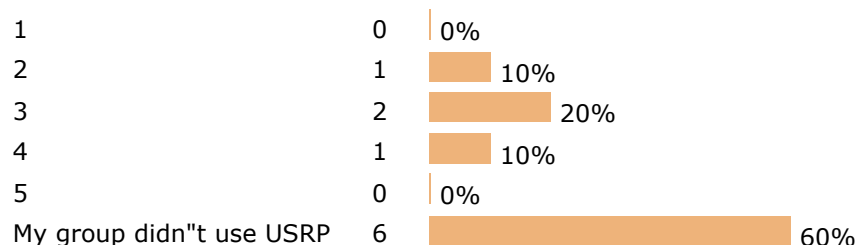
## 11. The android support was good.

10 svarande



## 12. The introduction to the USRP was good

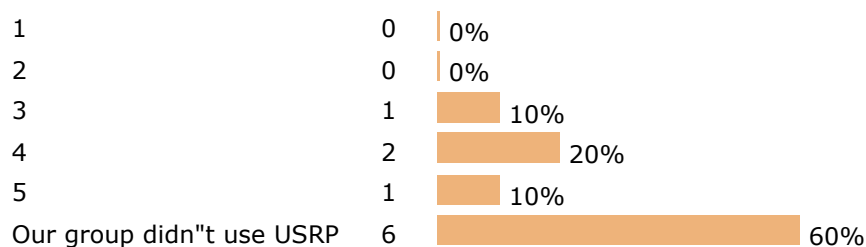
10 svarande



- Once again, maybe it was done on purpose, but it was quite short on not very informative (2)
  - We didnt receive USRP support lecture as expected so we were quite unclear about its functionality. (3)
  - We struggled a bit in the beginning to see the structure of code (the socket programming part). We didn't have any idea about the UHD and related stuff. This was quite new. If there was a lecture on how to use the socket programming part and link with the device, then it would have been a better start for us. But the readme text replaced a lecture, I feel. There was enough information in that. But following those instructions, step by step, we could understand how it works and how to use the skeleton code in a proper way to achieve desired results. (4)
- 

### 13. The USRP support was good

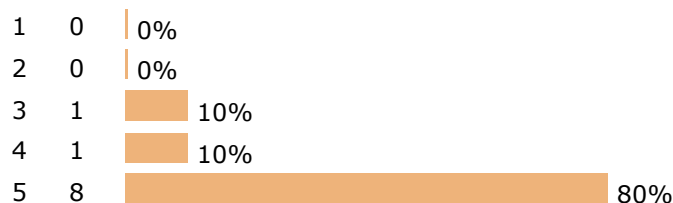
10 svarande



- Not enough informations in my opinion (3)
  - Good enough to improvise on existing system but for new user it is less sufficient. (4)
  - The support given in the website was helpful to start the project. (5)
- 

### 14. The teacher responsible for the course was good.

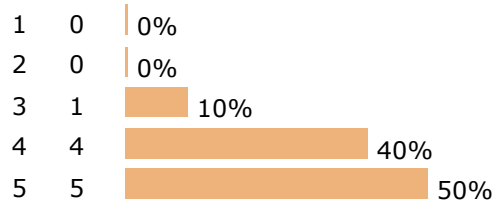
10 svarande



- Not many guidance or help in the project. We encountered problems that could have been avoided if we had been redirected from the wrong path we took. (3)
  - the teacher was fast to answer, and offered some good advice. He was very familiar with all the aspects of the project, which made it easier for us to discuss the issues we had. (5)
  - Was really helpful in each situation where we struck. We could get immediate responses as soon as we get back to him with a question. (5)
- 

### 15. Our project assistant(s) was good

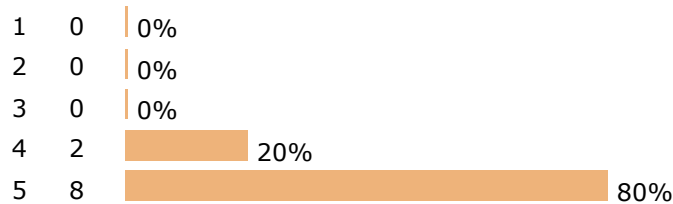
10 svarande



- Especially in the Java part which I worked on, the assistant didn't help very much because it was not his field of work. (4)
- Could have been more present or active, but once again, it's maybe done on purpose. (4)
- the assistant was not able to help us for the android programming but brought good support for the matlab development (4)
- He was helpful and very attentive in all the group meeting and direct us with suitable instructions too. (5)

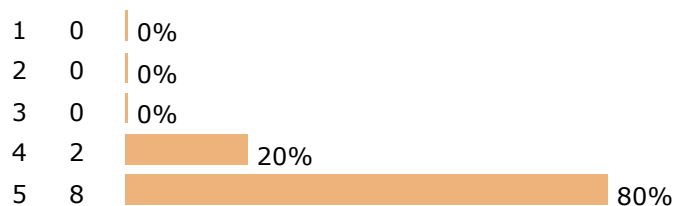
## 16. The computer support was good.

10 svarande



## 17. The work load correspond to a twelve credit course.

10 svarande



- good enough. (5)
- the workload can be heavy (it is a full time course), and 12 credits is a minimum. (5)

## 18. What was the best aspect of the course ?

- Get known how the theoretical things work on the real world
- It's great for us to be able to apply theoretical knowledge into practice, to see those modulation methods really works.
- I think is that we learn how to work by ourselves. We had to look for all the solutions and ask questions just when we couldn't go further. I think the experience we all get from this course is very important
- Work in a group and have something new to learn.

- Practical implementation of theoretical studies and optimization.
  - - working in a team - getting the opportunity to apply what we have learned in wireless communications - ending up with a working prototype
  - Learning Project management, task division, time management, learn the practical aspects of classroom theory. In depth knowledge in implementing working prototype.
  - For me, it was the ability of thinking independently as well as working together as a team. I benefited much from the course.
- 

### **19. Is there something that has not functioned well or should be changed/removed from the course?**

- Nothing specific
  - Everything available is great however I think there could be more instructions on what we are doing. When we encountered problems, there're not many references that we could refer to since it's a really new topic.
- 

### **20. What is your experience from working in a project group ?**

- Team communication is really important and efficient
  - A good group leader is important, and everyone should follow the time table and do the work assigned to him with great responsibility.
  - I think that the goals in a project can be accomplished easier by working in a group that individually, because everybody can give his/her own ideas.
  - more interaction between group is needed
  - working in a group can be challenging (repartition of tasks and have a good communication), but we learned a lot on the way and it is a great experience
  - Co-operation between members, join or agree with other's opinions and contributions, appreciating other's achievements. Learn to compensate for one's weak part.
  - I'm the theory developer in my project group. From our project, I achieved a much better understanding of the fundamentals as well as the ability of MATLAB programming.
- 

### **21. When did you here about the course ? Why did you chose it?**

- At the begining of 2012, It is mandatory
  - By the end of last semester. I think it's interesting and important for engineering students to actually do projects, otherwise the study is incomplete.
  - I looked for it in the EE department web page. I chose it because it was very interesting for me to work on a "kind of" master thesis project as I am still doing my bachelor. I also chose it because I can validate it with similar course at my home university.
  - From one of my friend who took this course last year. My friend recommended it to me.
  - Because it is project course :)
  - It was one of the eligible course I could take. The topics of the projects seemed interesting
  - I think a project course can help me to handle the knowledge I learned
  - - I saw the course on the wireless systems master webpage - I wanted to do a project.
  - In October, I was applying for the Student Exchange Program. I was searching for a suitable project that will be with equivalent credits to my Bachelor's degree project. Good that I got selected for the exchange program.
  - Last year. It's a mandatory course for my programme.
- 

### **22. Do you think smart-phones are a good platform for student projects?**

- Yes
- Yes. It's interesting and approachable. It also has great meaning to future work and study as

*smart-phones are playing a increasingly important role in people's life.*

*- Yes, because in a formal job, real-life applications are made and a clear example is the use of smartphones.*

*- Yes. But more information, like datasheets of the loudspeaker and microphone of the smart cellphone may be needed.*

*- yes*

*- yes. smartphones applications are really popular now, so it is interesting to get familiar with them. Plus it is very satisfying to end up with a working application.*

*- Yes, that's true. Many of my class-mates tried to work with Andriod platform. I think the interest in this is increasing among students.*

*- Yes, it is indeed. It's up-to-date and the platform is very promising and popular during these days.*

---

### 23. Do you think USRP is a good platform for student projects?

*- Our group didn't use USRP.*

*- Yes but little introductory class about USRP is needed*

*- Yes but, there should be a good introduction about their function. Or at least some guidances on where to find the information. In the beginning for example, a couple of days/weeks were spent only to understand the structure of the C++ code to be used. And in the end, we misunderstood it, so those weeks where a waste of time that could have been avoided with more information on the USRP.*

*- yes*

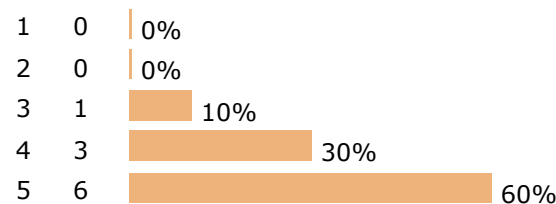
*- This was really good for me to get a start with a bit of socket programming. Actually my field of interest is RTOS and VLSI Design, but this project with USRP was suitable for me to work with such a kind of environment. Yea, this will be good start for students who would like to test their knowledge in real time implementation.*

*- Our group didn't use USRP so I'm not quite familiar with it.*

---

### 24. Reflective diaries is a good indicator of student learning.

10 svarande



*- I don't think so. Most of the time, I wrote them in hurry in order to go back working on the project. So I didn't spend a lot of time on trying to explain what I had learned exactly. (3)*

*- Yea, we can easily project and show the work we did for the project. This par was good. (5)*

---

### 25. Any other comments?

*- I would like to say that I really learned a lot from this course. My degree is not in telecommunications, but I put all my effort to understand what was going on in the project. I think this kind of projects are really good for students, because they are like real-life jobs.*

*- The course had a very good and serious organization, and obviously a lot of work had been done prior to the start of the project. This gave us a good working environment.*

*- Really happy to work with such a good team and project. For me it was a rare experience to get such an international experience.*



*- I'll definitely recommend the course to the fellow students. It requires much hard work, but surely one can benefit a lot from it.*

---

---

Kursutvärderingssystem från **Utvarderingar.com** 

---

**Publicerad av: Skolan för Elektro- och Systemteknik**  
**Andreas Stenhall, [stenis@ee.kth.se](mailto:stenis@ee.kth.se)**  
Senast uppdaterad: 2006-01-16 13:47