KFUPM - COMPUTER ENGINEERING DEPARTMENT

COE-341 – Data and Computer Communications
Presentation – Due date: October 21st, 2007

Prepare a "*professional*" and "*business-like*" power point presentation in only ONE of the following two WiMax related topics:

1. Overview and Applications of WiMax:

1.a Describe WiMax technology and the existing standards in brief.

1.b What are the common business models for such technology?

1.c What applications/services already existing or forecasted that may utilize WiMax.

1.d Give a detailed description of mobile WiMax and its applications.

2. Case Studies (points to consider: overview of involved technology and design – merits - cost issues – alternative solutions, etc.):

2.a How and why Broadband access for residential and business places being provided using indoor WiMax – This may replace ADSL business!

2.b Can and how WiMax be used for off-shore vessel communications? Any existing cases and products? How does that compare to using satellite links for example?

2.c How is WiMax being used for remote sites connectivity such as oil wells? What are typical deployment requirements?

Topic Distribution:

The following table shows the topic assignment for all students enrolled in COE 341

Student ID	Student Name	Topic
213095	MAKHDOOM, ABDUL-RAHEEM MU	1
232083	ARAFSHA, FAISAL HANI HUSS	2
233673	AL-SHARFA, ALA RADHI MOHS	1
237873	MOHIUDDIN, NOOR BELAL	2
241924	AL-SALEH, AMMAR SAEED ALI	2
242434	AL-SHWAILEH, SAAD ABDUL-G	2
243702	AL-DHARI, DHARI NASSER AB	1
244618	AL-DAHLAWI, ABDUL-SAMEA M	1
245154	AL-WAYELI, SALEH SULAIMAN	2
245364	AL-GERAFI, HAZEM ABDUL-MU	1
245384	AL-GHAMDI, MOHAMMAD ABDUL	1
245748	AL-HAZEMI, EYAD ABDULLAH	1
246538	AL-NASSER, SAAD MOHAMMAD	2
246746	DEHWAH, AHMAD HAMOUD AHMA	2
259479	AL-SALIM, AHMAD SAAD AHMA	1

Please note that EACH student must do the required work individually and submit his own work as stated below. However, students may consult and share resources. But under no circumstances copied (or very similar) presentations will be accepted.

Starters and Resources

The following is a list of urls and titles that can be used to start the search process for the required material:

1. http://en.wikipedia.org/wiki/WiMax (excellent overview of WiMax)

2. www.wimaxforum.org (main source of WiMax white papers and resources – especially the technology page http://www.wimaxforum.org/technology/ and the links therein)

3. http://www.tutorial-reports.com/wireless/wimax/tutorial.php (contains tutorials of interest)

4. Deepak Pareek, The Business of WiMax, John Wiley & Sons, LTD, 2006 (started place for business/investment related topics on WiMax)

5. J. Andrews, A. Ghosh, R. Muhamed, Fundamentals of WiMax, Prentice-Hall, 2007 (The book is also online from Safari – check with library staff).

Please remember this is NOT a RESEACH-oriented presentation. This is merely a presentation about an existing technology and its details. Therefore, your best sources should be tutorial-like papers and publications. For example, the IEEE communications and IEEE networking magazines will be of great help. On the other hand, the IEEE transaction journals for example will not be of great help.

Presentation Quality:

The presentation should completely cover the required subject in a clear and self-contained manner. All needed technical and illustrations should be included. You must use your own text only in a bullet or point format to summarize the required subject. If you have to quote a reference, make sure you surround the quoted text between the quotation marks. Make sure your technical information is correct and sound. When in doubt regarding a certain piece of technical information, please consult with the instructor, other colleagues, or other references.

On each slide with text or figures, there must be a small font textbook specifying the references that are the sources for the text or the figure. This is in addition to citing the references in the list of references at the end of the presentation package.

Presentation Length:

The presentation should contain anywhere from 25 to 35 slides. Presentations that are deemed too short or not covering the required material in a sufficient manner will not be accepted. A presentation may contain more than 35 slides if needed. However, the number of slides is not a major factor in this assignment, but rather the coverage and the correctness of the included material.

Presentation Illustrations (Figures, Charts, Diagrams, etc.):

You must include the needed illustrative figures (curve, network architecture, diagrams, maps, etc.) and those must be drawn (i.e. manually reproduced, preferably in colors, and not merely cut-and-paste from other documents) neatly using power point or Microsoft Visio. These figures must be editable in the package and not be inserted as pictures or meta files. You can include or import figures that are not your drawing only if absolutely necessary and only as an exception. Those imported figures must be imported as enhanced meta files and not as bit maps. The included figures, if not totally your design, should be referenced

properly with a clear text box under the figure stating the reference from which this figure is reproduced and the number of the figure and page number in the original reference.

Proper Referencing:

Your package must contain a final slide containing the list of references used to prepare the presentation. The list should follow the IEEE publication convention in formatting the references list.

You must reference reproduced figures and those should be stated on the same slide containing the figure as stated above and also in the master list of references at the end of the package. You must provide a reference for key statements and technical specifications you are quoting.

Your references must be reliable sources such as standards documents, refereed published tutorial papers, published books, reputable businesses reports/papers, etc. You must keep a pdf copy of the references used and already exist in electronic form (e.g. papers, online books, pdf printout of websites, business reports, etc.). These must be included on the final CD to be delivered.

Final Package Delivery

Save your power point file using the following naming convention: Presen1_COE341_YourFirstName_YourID.ppt. Email a compressed softcopy of the power point slides (not pdf) to ashraf@kfupm.edu.sa on or before the due date. Late assignment deliveries will *not* be accepted. Please make sure that the package can be opened using Office 2003 power point version.

In addition to the email, the student is to submit a CD with the following material on it:

- A folder containing the power point file in "ppt" format and in "pdf" format.
- A folder containing all references in pdf form, whenever possible.
- A folder containing all the included figures, charts, diagrams, pictures, etc. in their original editable form (i.e. in ".ppt" or in Visio format). Figures that are cut-and-past from other electronic documents or scanned should also be included in this folder. If you have digitized a graph to plot using Excel or Matlab, the folder should contain the excel sheet or the Matlab file used to produce the graph. The naming convention for the files corresponding to the included figures in this folder is "Fig_X_Y_Z.W". X is your student ID, Y is the slide page number where the figure occurs, Z is the figure number in that slide page (as a slide page may contain more than one figure or chart), and finally, W is the extension of the file (i.e. "ppt" for power point, "vsd" for Visio, etc.).
- A folder containing other resources that you think are of interest but are not cited in your presentation such as visited URLs, white papers, tutorial material, software tools in the area, related business reports, etc.

Presentation Evaluation

This presentation is worth 5% of the overall course work. A delivered package meeting the expectations above will be awarded the full 5%. An additional 2% bonus will be awarded to packages that exceed expectations.

When evaluating the presentation the overall quality will be considered in addition to the relative difficulty of the topic. Furthermore, the following criteria will be considered:

- Does the package cover the required material? Is it comprehensive?

- The correctness of the included material with focus on the technical specifications.

- The readability, professionalism, and effort in reproducing the illustration material.

- The reliability and correctness of references.

The main objectives of this assignment are to first introduce the component of self-learning where students are encouraged to read about and learn a topic that would not be explained in class. The second objective is to provide an exercise in professional presentation making and delivering while following the proper referencing etiquette. Students will be scheduled to deliver their presentations.