Project-3 (BEE-5B)

(Class Presentation)

Note:
Normally assignments are intended to give you practice questions from the topics covered in the class. This time we are going to emphasize more on applications. However the main purpose of an assignment can still be achieved by giving you practice questions. Therefore I have included in the slides questions from the book so that you can practice to get a grip on the topics. In case you can't find their solutions you know what you are supposed to do then.

Rules:

- Each presentation will be around 20 Mins.
- Three students will represent a group
- Top students will be held responsible if others have no idea about the project. They must inform in advance if some or few in the group are not cooperating.
- E-copies of all presentations shall be submitted. They will be available on my webpage.
- I will give a refreshment treat to the group who performs extraordinary :-)
- You may seek guidance from post-graduate students here. Information related to research groups is available on SEECS webpage.

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Group-A

Members:

Abdullah Amin; Mehwish Anwar; Yahya Ahmad; Syeda Sana Zafer; Khawaja Muhammad Abdul Rahman; Syed Ali Zargham Bukhari; Taimoor Tahir Muhammad Rameez; Muhammad Usman Nofal; Hafiz Faisal Naseer; Saqib Javed; Osama Dastgir Malik; Kh Muhammad Mashood

Task: **Apps-1: Transmission Line Equations**

To model basic partial differential equations (Telegrapher's equation) for transmission lines for both steady-state and non-steady state cases. Solutions and applicability. What's happening now days in this area?

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Group-B

Members:

Muhammad Bin Abdul Qayyum;Mahnoor Haneef; Zain Kabir; Zainab Shoaib Khan; Hamza Masood Khan;Hafiz Saad Abdul Majid ;Kamran Siddique; Talha Yousuf; Fahad Fareed;Usman Mahmood Khan; Muhammad Bilal Siddique

Task: Apps-2: Electromagnetic Theory

Electromagnetic fields, Maxwell's equations, Modeling, Interpretation and Solutions. Links with standard wave equations.

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Group-C

Members:

Talha Naqqash;Abbas Ahmeed;Hammad Imtiaz;;Hassan Saeed;Muhammad ;Ibrahim Zafar;Mirza Elaaf Shuja;Muhammad Haider Raza;Mamoona Inam;Ahmad Fahad;;Danial Nadeem;Laiba Nasir;Abdullah Ovais;Umair Ishfaq;Ryshum Ali;Asfandyar Hassan Shah

Task: Apps-3: Analytic Techniques for non-linear PDEs

Review of analytic techniques for non-linear PDEs such as Inverse Scattering Transforms, Lax-Pair Formalism, Bi-Hamiltonian Theory, Conservation Law approach etc of your choice. It would be great if details of any one of the approaches can be simplified to a level where your colleagues can comprehend them and you convince them.

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