**DAILY ASSESSMENT FORMAT**

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| **Date:** | **26/05/2020** | **Name:** | **PRIYA P RAO** |
| **Course:** | **Signals and System** | **USN:** | **4AL18EC041** |
| **Topic:** | **1.Fourier series and Gibbs phenomenal**  **2.Fourier series Fourier transform**  **3.The Fourier transform and Convolution Integrals**  **4.Laplace transform of 1st order equation**  **5.Laplace transform and Inverse Laplace transform using MatLab**  **6.Application of z-transform**  **7.How to calculate z transform in MatLab**  **8.Intuition of Fourier transform and Laplace transform** | **Semester & Section:** | **4TH sem ‘A’ section** |
| **Github Repository:** | **Priya-Rao** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  **C:\Users\Pawan\Desktop\ss2.PNG**  **C:\Users\Pawan\Desktop\ss4.PNG**  **C:\Users\Pawan\Desktop\ss5.PNG** |
| 1. **Fourier series and Gibbs phenomena:**   **New Doc 2020-05-26 15.05.06_1.jpg**  **This is the Gibbs phenomena. As we increase the order of approximation from lower order from a very coarse approximation to a very high approximation. It can be seen in the lower order, it starts off just being kind of one cosine function that’s a poor approximation and as we add and add more cosines, we see that this Gibbs phenomena starts to localize out at the corners so its doing a better and better job in the middle and it gives phenomena that ringing is localizing out to those points of discontinuity. And if we increase this n higher again to the number of grid points divided by two eventually it would look like it goes away and it’s a perfect approximation but if we zoom in we would see its still ringing.**  **This is the Gibbs phenomena. As we increase the order of approximation from lower order from a very coarse approximation to a very high approximation. It can be seen in the lower order, it starts off just being kind of one cosine function that’s a poor approximation and as we add and add more cosines, we see that this Gibbs phenomena starts to localize out at the corners so its doing a better and better job in the middle and it gives phenomena that ringing is localizing out to those points of discontinuity. And if we increase this n higher again to the number of grid points divided by two eventually it would look like it goes away and it’s a perfect approximation but if we zoom in we would see its still ringing.**   1. **Fourier series Fourier transform**   **In this chapter I have learnt about how we generalize from periodic function on domain –L-L the fourier transform which is defined on the infinite domain.**  **C:\Users\Pawan\Downloads\New Doc 2020-05-26 15.05.06_2.jpg**  **Equation \* is called as Riemann integral.**  **New Doc 2020-05-26 15.05.06_3.jpg**  **Advantages:**   * **It is extensively used to solve partial differential equation.** * **It is unitary operator.** * **Fourier transform of the derivative of a function is just iw times of that function.**   **Let us consider an example:**  **New Doc 2020-05-26 15.05.06_5.jpg**   * **It can be used to either approximate derivatives numerically very accurately or to transform partial differential equation into ordinary differential equation.**  1. **The Fourier transform and Convolution Integrals:**   **The Convolution of two functions F and G is defined as**  **New Doc 2020-05-26 15.05.06_6 - Copy.jpg**  **Fourier transforming f\*g, we get**  **New Doc 2020-05-26 15.05.06_7.jpg**  **Inverse Fourier transform of f^ĝ is f\*g**  **New Doc 2020-05-26 15.05.06_8 (1).jpg**   1. **Laplace transform of 1st order equation.**   **The transform of f(t) and y(t) are F(S) and Y(S)**  **New Doc 2020-05-26 15.05.06_9.jpg**   * **The purpose of Laplace Transform is to convert a differential equation into an algebraic equation.**   **New Doc 2020-05-26 15.05.06_10 (1).jpg**   1. **Laplace transform and Inverse Laplace transform using MatLab.** 2. **Application of z-transform.** 3. **How to calculate z transform in MatLab.** 4. **Intuition of Fourier transform and Laplace transform.** |
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| **Date:** | **26/05/2020** | **Name:** | **PRIYA P RAO** |
| **Course:** | **Python** | **USN:** | **4AL18EC041** |
| **Topic:** | * **Graphical user interfaces with Tkinter** * **Interacting with Databases** | **Semester & Section:** | **4th sem ‘A’ section.** |
| **Github Repository:** | **Priya-Rao** |  |  |

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| **AFTERNOON SESSION DETAILS** |
| **Image of session**  **C:\Users\Pawan\Desktop\rere1.PNG**  **C:\Users\Pawan\Desktop\rere2.PNG** |
| **Chapter 1: Graphical user interfaces with Tkinter:**  **In this chapter I have learnt about**   * **Introduction to Tkinter.** * **Setting up a GUI with Widgets.** * **Connecting GUI Widgets with Callback functions.** * **Creating a Multi-Widget GUI.**   **Chapter 2: Interacting with Databases:**  **In this chapter I have learnt about**   * **Introduction to “Python with Databases”** * **Connecting and inserting Data to SQLite via Python.** * **Selecting, Inserting, Deleting and Updating SQLite Records.** * **Introduction to PostgreSQL Psycopg2** * **Selecting, Inserting, Deleting and Updating PostgreSQL Records.** * **Querying data from a MySQL databases.** |