**DAILY ASSESSMENT FORMAT**

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| **Date:** | **25-05-2020** | **Name:** | **BHOOMIKA HEBBAR** |
| **Course:** | **Digital signal processing** | **USN:** | **4AL17EC010** |
| **Topic:** | **Fourier series and fourier transform,**  **Gibbs phenomenon,Hilbert transform** | **Semester & Section:** | **6th & A** |
| **Github Repository:** | **bhoomika\_python** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  **1.**  **2.**  **3.**  **4.** |
| **Report – Report can be typed or hand written for up to two pages.**  **Today I have learnt:**   * **Introduction to Fourier Series & Fourier Transform:**   1.fourier series part1&part2  2.inner product in Hilbert transform  3.complex fourier series  4.fourier series using matlab,using octave execute the code  5.fourier series using python.  6.fourier series and gibbs phenomenon using matlab   * **Digital signal processing:** Digital signal processing is the use of digital processing, such as by computers or more specialized digital signal processors, to perform a wide variety of signal processing operations. * **Fourier series:** The Fourier Series is a specialized tool that allows for any periodic signal (subject to certain conditions) to be decomposed into an infinite sum of everlasting sinusoids. * **Fourier transform:** Digital Signal Processing/Discrete Fourier Transform. As the name implies, the Discrete Fourier Transform (DFT) is purely discrete: discrete-time data sets are converted into a discrete-frequency representation. This is in contrast to the DTFT that uses discrete time, but converts to continuous frequency. * **Inner product in Hilbert transform:** The [mathematical](https://en.wikipedia.org/wiki/Mathematics) concept of a **Hilbert space**, named after [David Hilbert](https://en.wikipedia.org/wiki/David_Hilbert), generalizes the notion of [Euclidean space](https://en.wikipedia.org/wiki/Euclidean_space). It extends the methods of [vector algebra](https://en.wikipedia.org/wiki/Linear_algebra) and [calculus](https://en.wikipedia.org/wiki/Calculus) from the two-dimensional [Euclidean plane](https://en.wikipedia.org/wiki/Plane_(geometry)) and three-dimensional space to spaces with any finite or infinite number of [dimensions](https://en.wikipedia.org/wiki/Dimension). A Hilbert space is an abstract [vector space](https://en.wikipedia.org/wiki/Vector_space) possessing the [structure](https://en.wikipedia.org/wiki/Mathematical_structure) of an [inner product](https://en.wikipedia.org/wiki/Inner_product_space) that allows length and angle to be measured. Furthermore, Hilbert spaces are [complete](https://en.wikipedia.org/wiki/Complete_metric_space): there are enough [limits](https://en.wikipedia.org/wiki/Limit_(mathematics)) in the space to allow the techniques of calculus to be used. * **Fouries series using octave:**     x=3/pi;  f=0;  t=linspace(-3,2)  for i=1:1:10  an=x\*1/i  f=f+an\*sin(i\*(pi/2).\*t);  end   * **Fourier transform using python:**   **from** **sympy** **import** fourier\_series, pi  **>>> from** **sympy.abc** **import** x  **>>>** s = fourier\_series(x\*\*2, (x, -pi, pi))  **>>>** s.shift(1).truncate()  -4\*cos(x) + cos(2\*x) + 1 + pi\*\*2/3   * **Fourier series relation with Gibbs phenomenon:**   The DC component of the signal is equal to the first Fourier series coefficient and is simply the average value of the signal over one period. ... This effect is known as Gibbs phenomenon and it manifests itself in the form of ripples of increasing frequency and closer to the transitions of the square signal. |

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| **Course:** | **UDEMY PYTHON MEGA\_COURSE** | **USN:** | **4AL17EC010** | |
| **Topic:** | **Build a Personal Website with Python and Flask** | **Semester & Section:** | **6th &A** | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session** | | | |
| **Report – Report can be typed or hand written for up to two pages.**  **Today I have learnt :**   * personal Website - How The Output Will Look Like * Your First Website * HTML Templates * Navigation Menu * Note on Browser Caching * CSS Styling * Creating a Python Virtual Environment * How to Install Git * Deploying the Website to a Live Server * Maintaining the Live Website * Troubleshooting * If we deployed our website on Heroku but when we visit the website on the browser we will see an error, we probably did something wrong during the deployment.however we can see what you did wrong by looking at the server logs. You can access the server logs by running the following in your terminal:heroku logs * Python can be used to build server-side web applications. While a [web framework](https://www.fullstackpython.com/web-frameworks.html) is not required to build web apps, it's rare that developers would not use existing open source libraries to speed up their progress in getting their application working.Python is not used in a web browser. The language executed in browsers such as Chrome, Firefox and Internet Explorer is [JavaScript](https://www.fullstackpython.com/javascript.html). Projects such as [pyjs](http://pyjs.org/) can compile from Python to JavaScript. However, most Python developers write their web applications using a combination of Python and JavaScript. Python is executed on the server side while JavaScript is downloaded to the client and run by the web browser. | | | |