

AB-2



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500043, Telangana

CIVIL ENGINEERING

ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

| | | | |
|----------------------|-----------------------------------|---------------|-------------------|
| Name of the faculty: | Mr. P SHANTAN KUMAR | Department: | Civil Engineering |
| Regulation: | IARE - R20 | Batch: | 2020-2024 |
| Course Name: | Mathematical Transform Techniques | Course Code: | AHSC07 |
| Semester: | II | Target Value: | 60% (1.8) |

Attainment of COs:

| Course Outcome | Direct attainment | Indirect attainment | Overall attainment | Observation |
|---|-------------------|---------------------|--------------------|--------------|
| CO1 Explain the properties of Laplace and inverse transform to various functions such as continuous, piecewise continuous, step, impulsive and complex variable functions. | 0.90 | 2.40 | 1.2 | Not Attained |
| CO2 Make use of the integral transforms which converts operations of calculus to algebra in solving linear differential equations | 0.90 | 2.30 | 1.2 | Not Attained |
| CO3 Apply the Fourier transform as a mathematical function that transforms a signal from the time domain to the frequency domain, non-periodic function up to infinity. | 0.90 | 2.40 | 1.2 | Not Attained |
| CO4 Apply the definite integral calculus to a function of two or more variables in calculating the area of solid bounded regions | 1.60 | 2.30 | 1.7 | Not Attained |
| CO5 Develop the differential calculus which transforms vector functions, gradients. Divergence, curl, and integral theorems to different bounded regions in calculating areas. | 0.30 | 2.30 | 0.7 | Not Attained |
| CO6 Solve Lagrange's linear equation related to dependent and independent variables the nonlinear partial differential equation by the method of Charpit concern to the engineering field | 0.90 | 2.30 | 1.2 | Not Attained |

Action Taken:

- CO1: Giving assignments and conducting tutorials on explaining the properties of Laplace and inverse transform to various functions such as continuous, piecewise continuous, step, impulsive, and complex variable functions.
- CO2: Additional inputs will be provided on making use of the integral transforms which convert operations of calculus to algebra in solving linear differential equations
- CO3: Providing more information on applying the Fourier transform as a mathematical function that transforms a signal from the time domain to the frequency domain, a non-periodic function up to infinity.
- CO4: Need to provide more problems and assignments on applying the definite integral calculus to a function of two or more variables in calculating the area of solid bounded regions
- CO5: Giving assignments and conducting tutorials on Developing differential calculus which transforms vector functions, and gradients. Divergence, curl, and integral theorems to different bounded regions in calculating areas.
- CO6: Additional inputs will be provided on Solve Lagrange's linear equation related to dependent and independent variables the nonlinear partial differential equation by the method of Charpit concern to the engineering field

P. Shantanou
Course Coordinator

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Mentor

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