

## Faculty of Engineering & Technology

## **Transformations & Complex Analysis**

Information:

Course Code: EMP214 Level : Undergraduate Course Hours : 3.00- Hours

**Department:** Mechatronics Engineering

## **Description:**

Trigonometric series; Fourier series, integrals and transforms; Taylor and Laurent theories; Cauchy integral theorem; Singularity and residue theorem; Convolution and Laplace transform; Inverse Laplace transform methods; Conformal mapping; Fundamentals of z transform; Inverse z-transform methods; Difference equation and solution using z-transform technique; Applications using MATLAB.