# PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement
facilitated by the Institute of Smart Structures and Systems

Module PMRF-ISSS029/2023
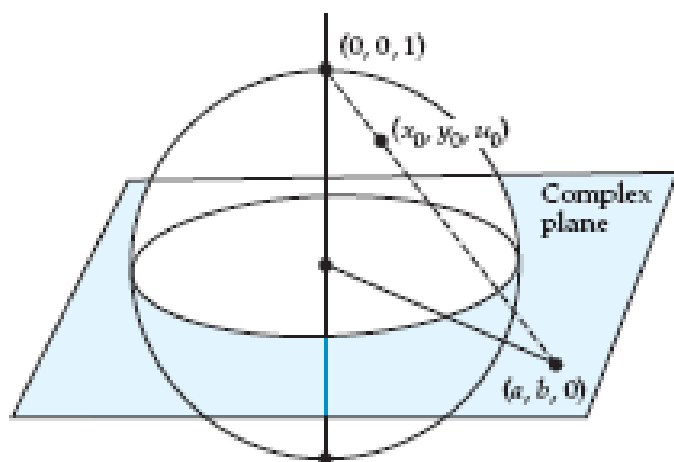
# Complex Analysis

**Name of the PMRF student**

## Sreenivas Saurab Kumar

**Required background of the students taught**

Knowledge of calculus at an undergraduate level. Some background on linear algebra, sequences and series might be useful, though not necessary.

**Online session coordinator**

Will be chosen from the list of registrants



Unit sphere

**Details of the content of the module**

There shall be four modules to this course. A brief description for each module is given below:

- **Module 1** – Complex numbers and their properties, stereographic projections, functions of complex variables.

- **Module 2** – Basic definitions, Limits, Continuity and Differentiation – Analytic functions.

- **Module 3** – Multivalued functions, Complex Integration, Taylor and Laurent series, Singularities.

- **Module 4** – Cauchy residue theorem, Principal value integrals and integrals with branch points.

**Schedule of the module**

Course start : 1$^{st}$ September, 2023

Course end : 15$^{th}$ December, 2023

Classes on : Every Friday, 6 to 7:30 PM.

Tutorial session : Every Saturday, 11 AM to 12 PM.

Total lecture hours : 40 (approx.)

Meeting link : Will be shared later

Link

Contact email ID: isss.forum@gmail.com

Registration link:

https://forms.gle/jpDodDnxQ3vpY1H46