Introduction to Banach Algebra Techniques

Venue: L-117, Department of Mathematics

Date: 11-15 March 2019 (Monday to Friday)

Time: 5.00 - 6.00 P.M.

Speaker: Prof. D. Sukumar, Department of Mathematics, I.I.T. Hyderabad

Abstract of the talk: Banach algebra explores connections between algebraic and analytic behaviour by keeping most of the axioms of algebraic and analytic structure on the underlying set. Understanding the interconnection between them and influence of one on another is one of the prime motto. An untraceable property of one can be understood by studying the equivalent property in the other structure. Because of the imposition of more and more structure on the underlying set, the study is also rich in nature. Simple proofs of classical results, equivalent conditions and new insights are some of the by-products of this study.

By algebraic structure we mean group, ring, field, vector space, module etc and analytic structure we mean topology, metric, norm, continuity, differentiability, measure and integration.

About the Speaker: Prof. D. Sukumar obtained his Ph.D. from I.I.T. Madras under the guidance of Prof. S.H. Kulkarni. After having visiting positions in I.I.Sc. Bangalore and Indian Statistical Institute, Bangalore, he joined the Department of Mathematics, N.I.T. Suratkal for the faculty position. Later he moved to I.I.T. Hyderabad and right now he is serving there. In the past three years he held the responsibility of Head of the Department of Mathematics. His research interests include Banach Algebra, Operator theory, Spectral theory and Fourier analysis. He is involved in the annual Mathematical Training and Talent Search (MTTS) program for more than a decade and is a main contributor in identifying and nurturing mathematical talents among graduate students across the country. He has an articulate way of taking his ideas with precision to the audience and can inculcate interest even among non-specialists into the advanced topics on mathematical analysis that attracts appreciation in various forum. He has given special lectures in various Annual Foundation Courses and Instructional courses across several institutions in India.