

**DISCRETE MATHEMATICS SEMINAR**  
CENTER FOR APPLIED MATHEMATICS AND SCIENCE  
DEPARTMENT OF MATHEMATICS  
UNIVERSITY OF WEST GEORGIA

**9:20 - 9:50 AM, Monday, November 7, 2016**

**BOYD 306**

Speaker: **Muhammad Inam** (UWG)

Title: **Adian Inverse Semigroups**

Abstract:

In Abstract Algebra particularly in the field of combinatorial group theory and combinatorial semigroup theory the word problem is one of the classical decision problems which has been vastly studied over the centuries. The word problem is the question of having a criterion through which we can decide whether given any two words over a set of generators represent the same word or not in an algebraic structure. In 1955 Novikov and Boone proved that the word problem for finitely generated groups is undecidable. We show that the word problem is decidable for some classes Adian semigroups, Adian inverse semigroups and Adian groups.