

E-Seminar  
**Frontiers in Mathematics**  
 A Joint Venture  
 of  
 Department of Mathematics, Sir Syed University of Engineering and Technology, Karachi  
 and  
 Department of Mathematics, Baku Engineering University, Baku

<b>PROGRAMME DETAILS</b>	
<b>Addresses:</b>	Baku Engineering University(BEU), Khirdalan city, Baku, Azerbaijan Sir Syed University of Engineering and Technology, Karachi, Pakistan.
<b>Seminar Organizer/ Coordinator</b>	Ms Ingila Rahim (Department of Methmetics, SSUET) Ms Suheyla Bahlulzade (Department of Methmetics, BEU)
<b>Event Date:</b>	17th September , 2020
<b>Event Start Time:</b>	15:00 pm (PST)
<b>Event Mode:</b>	Online (ZOOM)
<b>Looking Forward:</b>	Prof. Dr. Rashid Kamal Ansari (SSUET), Prof. Dr. Rakib Efinive (BEU)
<b>Contact Email:</b>	<a href="mailto:irahim@ssuet.edu.pk">irahim@ssuet.edu.pk</a>
<b>Organized by:</b>	Baku Engineering University(BEU), Khirdalan city, Baku, Azerbaijan Sir Syed University of Engineering and Technology, Karachi, Pakistan.
<b>Registration Link:</b>	<a href="#">Click here for Regisration</a>
<b>Seminar Objective:</b>	To introduce the Faculty and Research Associates of both the departments to the on going current research. And a possible collabration.

## Speaker 1

<b>Speaker:</b>	Prof. Dr. Rashid Kamal Ansari
<b>Speaker Introduction</b>	Phd in Mathematics, Post Doc. In Space Science Professor, Department of Mathematics, SSUET, Karachi
<b>Subject/Title</b>	Some Functors and their Role in Classification of Modules
<b>Abstract</b>	<p>Functors are important in Mathematics in General and in Algebra in particular because they are capable of establishing links between different categories. This talk concentrates on some functors frequently used in algebra. These functors not only relate different categories used in algebra but are also used in classifying and characterizing various categories of algebraic structures. In this communication our main concern is with module categories and the functors Tor and Ext which are the derived functors of <math>\otimes</math> and Hom respectively. Initially these functors were used to define and characterize the categories of torsion and cotorsion modules. Later, new categories were defined and characterized by Tor and Ext respectively. Some of them for example are categories of flat, projective, injective, torsion and contortion modules. This talk reviews the functorial characterization and evolution of some such categories and their extensions to new categories for example the category of modules embedded in a flat module. Some of these categories of modules are important in the study of module approximations. I welcome you all (particularly novices and beginners) in this fascinating, amusing and amazing world of functors a profoundly used tool in the study of Homological Algebra.</p>
<b>Start Time:</b>	15:25:00 PM (PST)
<b>Contact Email:</b>	<a href="mailto:mransari@ssuet.edu.pk">mransari@ssuet.edu.pk</a> / +923212262028
<b>Mobile/Whatsup</b>	(92321) 226-2028

## Speaker 1

<b>Speaker:</b>	Prof. Dr. Rakib Efendiev
<b>Speaker Introduction</b>	PhD in Mathematical Analysis, Assoc. Professor, Department of Mathematics, Baku Engineering University, Baku
<b>Subject/Title</b>	<b>SPECTRAL ANALYSIS OF ONE CLASS NON-SELF ADJOINT OPERATORS ON GRAPH WITH MULTI-CYCLES</b>
<b>Abstract</b>	We investigate the spectral problem for the non-self-adjoint operator on the graph with loops, formulate a direct problem, find the particular solutions of the problem, solve the inverse spectral problem of recovering of the potential from spectral data on the graph and provide a constructive procedure for the solution of the inverse problem on the graph.
<b>Start Time:</b>	15:45(PST)
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<b>Mobile/Whatsup</b>	(99450) 212-2834

<b>Time PST</b>	<b>Program Details</b>
15:00	Tilawat e Quran e Pak
15:05	Introductory Remarks (Dr. Rakib, BEU)
15:15	Welcome speech by Vice Rector (Prof. Dr. Hamzagha Orujov, BEU)
15:20	Welcome speech by Vice Chancellor (Prof. Dr. Vali uddin, SSUET)
15:25	Speaker 1(15 min Talk+5 min Q/A)
15:45	Speaker 2(15 min Talk+5 min Q/A)
16:05	Concluding Remarks (Dr Rashid Kamal, SSUET)