

RESEARCH NEWSLETTER

A RESEARCH COMMITTEE PUBLICATION

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FOREWORD

This first issue of the University Research Newsletter for the academic year 2004-2005 provides up-to-date information about the research and other scholarly activities undertaken by the University faculty members for the half year period from July 2004 until December 2004. A healthy research program has the advantage of attracting the best faculty and students. The scope of research support has been expanded in response to global technological challenges and in order to support and sustain diverse faculty research interests. Our goals are to promote creativity; to address critical, scientific, technological and managerial issues; encourage research in areas of national significance; and to improve the quality of graduate education. This *Research Newsletter*, published by Deanship of Scientific Research on a semi-annual basis, provides an overview of our faculty's research output, as well as the funding which the University provides its faculty to pursue research and scholarship. In particular, the *Research Newsletter* reports on faculty publications, conference presentations, funded projects, and many other features. During the academic year 2003-04, the University supported 74 projects in three categories, which shows an increase of about 54% from the number of projects supported in 2002-03. A noticeable trend is that while the number of internal funded projects is about the same, there has been an increase in the number of projects in the SABIC and Fast Track categories by about 48% and 188%.

During the current academic year, new research grants have been formulated such as Junior Faculty Research Grant and Special Societal Studies Research Grant. In addition to this, a new initiative has been taken in respect of Arabic Book Authoring and Translation.

The Deanship of Scientific Research is making its best efforts in promoting the new research grants among the faculty members so that the faculty members can actively participate in the research which is not only beneficial to their own professional career but also to the development of the Saudi society.

Our sincere appreciation is due to Mr. R. Jayaraman and Mr. Juned Laiq Syed for compiling this edition of the Research Newsletter.

Dr. Mohammad Al-Ohali
Chairman, Research Committee

2. ABSTRACTS OF SOME OF THE RESEARCH PROJECTS RECENTLY APPROVED FOR FUNDING

1. Project No. RI/ENG. FAILURE/280

**Investigators: Dr. Hany Tawancy (Res. Inst.)
Dr. Nureddin Abbas (RI)**

Title: Practical Engineering Failure Analysis (Bookwriting Project)

Abstract

Failure of engineering structures in industry can cause loss of life, unscheduled shutdowns, increased maintenance and repair costs, and damaging litigation disputes. To prevent future recurrence of the problem it is essential to carry out an investigation aiming at deterring the root cause of failure. Also, the results of the investigation can be used as the basis for insurance claims, marketing purposes, and to develop new materials or improve the properties of existing ones. The treatment of this subject is, therefore, important in order to develop preventive measures minimizing the incidents of failure and reduce their associated cost to industry.

All engineering failures without exception occur at the weakest link in the design-fabrication-performance chain of a product. The ability to identify this weakest link and propose remedial measures is the key for a successful failure analysis investigation. This requires a multi-disciplinary approach, which forms the basis of this book. An important feature of this book is that it does not only demonstrate the methodology to conduct a successful failure analysis investigation, but also it provides the necessary background. Different stages in the life cycle of an engineering product encompassing design, fabrication and performance in service are explained. A variety of factors that can influence the ability of a product to fulfill its functional requirements during service are discussed.

The background needed to conduct a successful failure analysis investigation is developed by introducing important principles of materials science and engineering. Basis principles of fracture mechanics and stress analysis are also elucidated. Various mechanical properties and the tests required to measure them are described. Both macroscopic and microscopic characterization of materials and their relevance to the field of failure analysis are discussed. This knowledge is then used to develop the procedure of a thorough failure analysis investigation. Finally, several case studies covering failures related to processing of materials, design, manufacturing, and service conditions are classified according to the type of industry are included to serve as examples. Within this context, the difference between the mode of failure and cause of failure is emphasized.

It is hoped that this book will provide the reader with the tools required to reach a sound conclusion about the cause of component failure and provide proper recommendation for preventive measures. Because of the legal implications of failure analysis investigation, the use of proper technical terminology is emphasized throughout the text.

Many of the micrographs which appear in this text were generated using the facilities provided by the Materials Characterization Laboratory of the Research Institute of King Fahd University of Petroleum and Minerals. It is our pleasure to acknowledge the continuous support provided by the University during the course of this project. The first author is greatly indebted to his wife. Without her unfailing support and encouragement, this project would not be made possible.

2. Project No. IM/Saudi Economy/281

Investigator: Dr. Mohammad Ramady

Title: The Saudi Arabian Economy: Policies, Achievements and Challenges (Bookwriting Project)

Abstract

In this thorough introduction to the economics of Saudi Arabia, several overlapping themes are used to establish and develop a framework for studying the fundamental challenges to the Saudi economy. Particular attention is paid to the benefits of short-term planning and long-term diversification intended to shield the economy from potentially destabilizing oil price fluctuations.

The author examines the core strengths and evolution of various financial institutions and the Saudi stock market in the face of globalization, before analyzing the private sector in detail. Topics discussed include:

- The hydrocarbon and minerals sector, including a new model of mining privatization and cooperation
- The impact of small and medium sized businesses
- The evolving role of “family” businesses
- The growing role of women in the Saudi economy
- The complex overall relationship between the public and private sectors.

Further topics examine shifting trade patterns, the Saudi “offset” technology transfer program, which the author believes can lead to a much-needed culture of private sector research and development. Finally, the author offers an analysis of key challenges facing the Saudi economy, paying particular attention to the potential costs and benefits of privatization, globalization, and eventual membership in the WTO. Employment, education, economic and social stability, and Saudi Arabia’s place in the Gulf Cooperation Council, are offered as keys to the consensus building needed to ensure the Kingdom’s healthy economic future.

3. RESEARCH/BOOK-WRITING PROJECTS CURRENTLY SUPPORTED BY THE UNIVERSITY

College / Department -----	Principal Investigator / Co-Investigator(s) -----	Title of the Project and its Code -----
College of Engineering Sciences		
Chemical Engineering	Dr. Sleem-ur-Rahman Dr. Ramazan Kahraman Dr. M.A. Abul-Hamayel	Corrosion Protection of Steel by Catalyzed Polypyrrole Films (CHE/C-PROTEC- TION/227)
Chemical Engineering	Dr. Habib Zughbi Mr. Zahid Khokhar	Numerical and Experimental Investigations of Mixing in Fluid Jet Agitated Tanks: Effects of Geometry and Flow Asymmetry (CHE/MIXING/253)
Chemical Engineering	Dr. Sulaiman Al-Khattaf Dr. Adnan J. Al-Amer Mr. Kamal Mahgoub	Catalytic Isomerization of META/Ortho-Xylenes to Paraxylene in a Fluidized Bed Reactor (CHE/ISOMER/255)
Chemical Engineering	Dr. Usamah Al-Mubaiyedh	The Stability and Dynamics of Non-Isothermal Taylor-Coutte Flow: Influence of Viscous Heating, Buoyancy and Fluid Thermal Sensitivity (CHE/TAYLOR-FLOW/262)
Chemical Engineering	Dr. Muhammad Al-Arfaj Dr. Hussain Al-Duwaish (EE)	Development and Application of State Estimators in Control of Reactive Distillation (CHE/DISTILLATION/272)
Chemical Engineering	Dr. Raafat Al-Anaizy Dr. Nadhir Al-Baghli	Photooxidation of MTBE in the Presence of Hydrogen Peroxide (CHE/MTBE/275)
Civil Engineering	Dr. Naser A. Al-Shayea	Elastoplastic-Damage Model for 3-D Stress-Strain Behavior of Soil (CE/SOIL/239)

College / Department -----	Principal Investigator / Co-Investigator(s) -----	Title of the Project and its Code -----
Civil Engineering	Dr. M.H. Baluch Dr. Ali Al-Gadhib	Influence of Environmental Variables and Mix Design on Moisture Transport in Concrete (CE/MIX.DESIGN/267)
Electrical Engineering	Dr. Husain Al-Duwaish (EE)	Advanced Multivariable Control of a Gas Plant (EE/ADV.CONTROL/231)
Electrical Engineering	Dr. Abdelmalek Zidouri (EE) Dr. Muhammad Sarfraz (ICS)	Automatic Text Recognition: A Need in Arabization (EE/AUTO-TEXT/232)
Electrical Engineering	Dr. Mohammad A. Khan (EE) Dr. Umer Al-Suwailem (EE) Dr. Mohamed Mohandes (EE)	Trellis-Coded Residual Vector Quantization based Subband Image Coding (EE/TRELLIS/236)
Electrical Engineering	Dr. Husain A. Al-Jamid (EE)	Optimization of the Method of Lines for the Analysis of Photonic Bandgap Structures (EE/BANDGAP/245)
Electrical Engineering	Dr. Abu Hamed Abdur-Rahim Dr. Samir Al-Baiyat (EE)	Robust Shunt Connected FACTS Devices for Power System Damping Improvements (EE/ROBUST/252)
Mechanical Engineering	Dr. Mehmet Sunar Dr. Fouad Al-Sunni Dr. S.A. Al-Kaabi	Substructural Control of Fuzzy Flexible Systems ME/FUZZY/197
Mechanical Engineering	Dr. Ahmed S. Al-Garni (ME) Dr. Saad Ahmed (ME) Dr. Ahmet Z. Sahin (ME)	An Experimental Investigation of a Leading Edge Rotating Cylinder for Aircraft Operation at High Incidence (ME/CYLINDER/237)

Principal Investigator /

Title of the Project

College / Department -----	Co-Investigator(s) -----	and its Code -----
Mechanical Engineering	Dr. Zaki Ahmad (ME)	Principles of Corrosion Engineering and Corrosion Control (Bookwriting Project) (ME/CORROSION.ENG/258)
Mechanical Engineering	Dr. Hassan M. Badr Dr. M.A. Habib Dr. S.A.M. Said Dr. R. Ben Mansour	Turbulent Natural Convection Flow in Parallel and Converging-Plate Vertical Channels (ME/TURBULENT/246)
Mechanical Engineering	Dr. Zaki Ahmad (ME)	Principles of Corrosion Engineering and Corrosion Control (Bookwriting Project) (ME/CORROSION ENG./258)
Mechanical Engineering	Dr. Mohammad Antar Dr. Maged El-Shaarawi	Entropy Generation Around a Solid/Liquid Sphere in a Gas Stream (ME/ENTROPY/261)
College of Computer Science & Engineering		
ICS Department	Dr. M. Sarfraz	Geometric Modeling: Techniques, Applications, Systems and Tools (Bookwriting Project) (ICS/GEOMETRIC/256)
Computer Engineering Department	Dr. Mohammad Sadiq Sait Dr. A.S. Abdul Waheed Mr. Mahmood R. Minhas	Parallel Iterative Heuristics for Performance-Driven Low-Power VLSI Standard Cell Placement (COE/CELL.PLACE/263)
Systems Engineering	Dr. Umar Al-Turki Dr. Shokri Z. Selim Dr. Abdulbasit Andijani	On Stochastic Single Machine Early-Tardy Scheduling SE/SCHEDULE/191
Systems Engineering	Dr Mohammad Ben Daya Dr. Mohammad Darwish Dr. Kadir Ertogral	Integrated Manufacturer-Retailer Supply Chain Models (SE/CHAIN.MODEL/265)
College /	Principal Investigator /	Title of the Project

Department -----	Co-Investigator(s) -----	and its Code -----
Systems Engineering	Dr. Malick Ndiaye Dr. Shaik Arifusalam (SE)	Integrating Retailing Location Models with GIS in Siting Support System (SE/RETAIL/279)
Accounting & MIS	Dr. Haider Madani	Corporate Disclosure and Reporting Practices in the Gulf Cooperative Council Countries: A Cross-National Comparative Investigation (CIM/DISCLOSE/248)
College of Sciences		
Chemistry	Dr. Wolfgang Forner	Nonlinear Charge Carriers in Polyparaphenylene CY/NONLINEAR/216
Islamic & Arabic Studies Dept.	Dr. Ibrahim Muttriff	Saudi Economics Between Reforms and Opening Up: September 2001-2003 (Sabbatical leave for book writing project) (IAS/ECO REFORMS/264)
Mathematical Sciences	Dr. M. Aslam Chaudhry Dr. M. Asghar Qadir	Formulation Properties and Applications of the Gamma- Zeta Functions (MS/ZETA/242)
Mathematical Sciences	Dr. S. Kabbaj	t-Class Semigroups of Integral Domains (MS/T-CLASS/257)
Mathematical Sciences	Dr. Ibrahim Rahimov Dr. Hassan Muttalak	Investigation of a Random Sum of Indicators with Applications in Branching Stochastic Processes (MS/STOCHASTIC/254)
<u>College/Department</u>	<u>Principal Investigator and</u>	<u>Title of the Project and the</u>

	<u>the Co-Investigators</u>	<u>Code Number</u>
Mathematical Sciences	Dr. Selim Messaoudi	On the Long Time Behavior of Some Viscoelastic Problems (MS/VISCOELASTIC/270)
Mathematical Sciences	Dr. A. Lyaghfour	On the Dam Problems with Two fluids (MS/DAM/273)
Mathematical Sciences	Dr. Mohammad El-Gebeily Dr. Khaled Furati Dr. Hattan Tawfiq	Approximating Singular ODEs by Nearby Regular Ones: Theoretical and Computational Issues (MS/SINGULAR ODE/274)
Physics	Dr. S.M. Al-Amoudi Dr. H. Bahlouli	Real-Time Dynamics of Bose-Einstein Condensates (PH/BOSE/241)
Physics	Dr. Abdullah Alsunaidi (Phys) Dr. Basel Abu Sharkh (Che)	Self-Assembly in Confined Semiflexible Copolymers (PH/COPOLYMERS/268)
College of Environmental Design (City & Regional Planning)	Dr. Adel Aldosary Mr. Shaibu Bala Garba	An Investigation into the Application of GIS for Infrastructure and Facilities Management in Saudi Arabia (CRP/GIS/235)
College of Environmental Design (Construction Engineering & Management Dept.)	Dr. Mohammad Al-Khalil	The Value Engineering Experience at Saudi Aramco (CEM/VALUE ENG/276)
College of Industrial Management (Finance & Economics Dept.)	Dr. Mohammad Ramady	The Saudi Arabian Economy: Policies, Achievements and Challenges (IM/SAUDI ECONOMY/281)
Research Institute	Dr. Hany Tawancy Dr. Nureddin Abbas	Practical Engineering Failure Analysis (RI/ENG. FAILURE/280)

4. RESEARCH PROPOSALS UNDER REVIEW

#	Name of Faculty & Dept.	Title of the Research Proposal
1.	Dr. Abdulaziz Al-Shuaibi (Math) Dr. Mohammad Iqbal (Math)	On the Inversion of some integral transforms with the use of orthogonal polynomials and regularization methods
2.	Dr. Zaki Ahmad (ME) Mr. Abdul Aleem, B.J. (ME)	Exploring the Corrosion Behavior of New Generation Scandium Reinforced Aluminum Alloys for Service Performance
3.	Dr. Muhammad E.S. Elrabaa (Computer Engineering)	Development of Digital Circuit Techniques for Clock Recovery and Data Re-Timing for High Speed Non-Return-to-Zero Source-Synchronous Serial Data Communications
4.	Dr. Fouad M. Al-Sunni Dr. Samir Al-Amer (SE)	Identification of a class of nonlinear systems
5.	Dr. Salah M. Sultan (Chemistry)	Sequential Injection Analysis Technique for Automated Titrations (Release time) (proposal recd. on 26.1.2003)
6.	Dr. Ahmad A. Abu-Musa Dr. Jassim S. Al-Rumaihi Dr. Muhammad A. Al-Khalidi (Accounting & MIS)	Evaluating the Security Controls of Computerized Accounting Information Systems in Saudi Arabian Banks
7.	Dr. Basel Abu-Sharkh (Che) Dr. Sk. Asrof Ali (Chem) Dr. Ibnelwaleed Hussein (Che) Dr. Hasan A. Al-Mualem (Chem)	Influence of Hydrophobe Architecture on Self-Assembly, Rheology, and Interfacial Properties of Amphiphilic Polyelectrolyte, Polyampholyte and Neutral Co-Polymers.
8.	Dr. H. Bahlouli (Phys) Dr. A. Alsunaidi (Phys) Dr. S. Al-Amoudi (Phys)	Transport Properties of Nano-Structure Devices
9.	Dr. Wolfgang Forner (Chem) Dr. Hassan M. Badawi (Chem)	Potential Surfaces and Vibrational Analyses of Some Halopropanols
10.	Dr. N. Tabet (Physics) Dr. A. Mekki (Physics) Dr. K. Mezghani (ME)	DC-Magnetron Sputtering Synthesis and Characterization of the Physical Properties of Zinc Oxide Thin Films
11.	Dr. Abul Hasan Siddiqi (Math) Dr. Hattan Tawfik(Math)	Wavelet and Fractal Methods for the Analysis of Meteorological Data of Saudi Arabia
12.	Dr. Mohammad F. Al-Kuhaili Dr. S.M.A. Durrani, CAPS, RI Dr. E.E. Khawaja, CAPS, RI	Development of a New Method for Determining the Optical Constants (n and k) of Thin Inhomogeneous Films
13.	Dr. Khaled Salah (Asst. Prof.) ICS Mr. Khalid El-Badawi (Lecturer)	A Methodology for Successful Voice over IP Deployment
14.	Mr. Ejaz Ahmed (ICS) Dr. Muhammad Salahdin Mr. M.I. Abbasi Mr. Bashir Muhammad Ghamdi	Implementation of Staging Schema for Web Based Data Warehousing Applications
15.	Dr. Mohammad Fettouhi (Chem)	New Group 10 metal complexes based on chelate ligands bearing nitroxide radicals.

	Dr. Bassam El Ali (Chemistry) Dr. Khalil Ziq (Physics)	Magnetic properties and Catalytic performance in Oxidation Reactions of Alcohols
16	Dr. M. Saleh Ashoor (IAS Dept.) Dr. Israr S. Khan (CIM) Dr. Gازه K. Hamadeh (Medical Center)	An Investigation of Repetitive Strain Injuries (RSI) Among the Computer Users in Universities of Saudi Arabia
17.	Dr. Sulaiman Al-Khattaf (Che) Dr. Raafat Alnaizy (Che)	A Novel Process for Methanol Alkylation of Toulene to Produce Xylenes
18.	Dr. Bassam El Ali (Chemistry) Dr. Basel Abu Sharkh (Che) Dr. Mohamed Morsy (Chemistry) Dr. Mohamed Fettouhi (Chemistry)	Regioselective Catalytic Hydrocarboxylation of Alkynes by Palladium Complexes. Effects of the type of Ligands and Additives. Computational Study of the Mechanisms of Reaction
19.	Dr. Esam Hamad (Che)	A New Model for the Gibbs Free Energy: Effect of Pressure on Liquid Phase Behavior (Release Time Proposal)
20.	Dr. M.H. Baluch, CE Dept. Dr. Ali H. Al-Gadhib Dr. O.S.B. Al-Amoudi Dr. M. Kalimur Rahman	Engineering Guidelines for Application and Design of Prestressed Precast Hollow Core Concrete Slabs Strengthened with CFRF Sheets.
21.	Dr. M. Sarfraz, ICS Dept.	Reverse Engineering for Geometric Models Using Evolutionary Heuristics
22.	Dr. Ali A. Shash (CEM) Dr. Mohammad Baluch (CE) Dr. Muhammad K.Rahman (RI) Dr. Ali Al-Gadhib (CE)	Study on Reactive Powder Concrete for Repair and Retrofitting of Concrete Structures
23.	Dr. Muhammad Shafiq (SE) Dr. Fouad Al-Sunni (SE) Dr. Jauhar Ali (SE)	Adaptive Tracking of Non-Minimum Phase Discrete-Time Plants Using Inverses of Signals
24.	Dr. Mohammad S. Vohra (CE) Dr. M.S. Al-Suwaiyan (CE) Mr. M.H. Essa (CE) Mr. M. Saleem (CE)	Use of Saudi Natural Zeolites for Hard Groundwater Treatment
25.	Dr. Jawad Abuihlail (Math)	Primeness and Coprimeness Conditions for Comodules and Corings
26.	Dr. Rabee M. Reffat (Arc) Mr. Yasser Hany Alsawy (Arc)	A Semantic-Based Virtual Design Environment for Digital Designing in Architecture
27.	Dr. Mohammed A. Al-Daous (Chem)	Growth of Uniform Zeolite Layers on 3D Ordered Macroporous Anion Modified Zirconia: Synthesis, Characterization, and Catalytic Evaluation
28	Dr. Sleem ur Rahman (Che) Dr. Ahmed Yamani (EE)	Development of Solid-Liquid Mass Transfer Probe Based on Limiting Diffusion Current: Application to Stirred Tanks
29.	Dr. Salih Duffuaa, Dr. Mohd. Darwish and Dr. Ahmed E. Haron (all SE Dept.)	Multi-Objective Mathematical Models for Process Targeting

5. BOOK-WRITING PROPOSALS SUBMITTED FOR FUNDING
WHICH ARE UNDER REVIEW

S. No.	Name of Faculty & Department	Title of the Research Proposal
1.	Dr. Khaled Bubshait, Management & Marketing, CIM	Handbook on Project Management Best Practice
2.	Dr. Motaheruddin Ahmed, Physics	Selected Problems and Solutions in Atomic and Nuclear Physics
3.	Dr. A. Kharab, Mathematics Dept.	An Introduction to Numerical Methods: A MATLAB Approach

6. SABBATICAL LEAVE PROPOSALS RECEIVED FOR 2004/2005

College/ Department	Name of Faculty	Title of Sabbatical Proposal	Host Institution
College of Industrial Management Management & Marketing Department	Dr. Mohammad Al- Bureay	Sabbatical Proposal to write a resource and reference bibliographical book on the subject of Islamic Management	International Islamic University, Malaysia.
College of Sciences Earth Sciences Department	Dr. Mohammad Makkawi	Assessing Risk and Analyzing Uncertainty with Soft Data for Groundwater Flow and Transport Simulation	Saudi Aramco

7. SABIC AND FAST TRACK PROPOSALS RECEIVED DURING NOVEMBER-DECEMBER 2004 FOR FUNDING

S. No.	Name of Faculty	Department	Title of the Proposal
SAB-2005-1	Dr. A.H. Abdur Rahim Dr. Samir A. Al-Baiyat	Electrical Eng Electrical Eng.	Self-Tuning Adaptive Stabilizer for a Unified Power Flow Controller
SAB-2005-2	Dr. Salem M. Al-Ghamdi Dr. Mohammad Yousef	Mgt & Mkt Mgt & Mkt	Obstacles Towards Effective Project Implementation in Saudi Petrochemical Industry
SAB/2005-3	Dr. Khaled Salah Mr. Syed Bukhari Mr. Khalid El-Badawi	ICS ICS ICS	Analytical, Simulation, and Experimental Investigation of the Performance of Popular Interrupt Handling Schemes for Gigabit-Network Hosts
SAB/2005-4	Dr. Nasser-eddine Tatar Dr. Salim Messaoudi	Mathematics Mathematics	On a Viscoelastic Material Permissive to Slight Deformations
SAB/2005-5	Dr. Mohammad A. Youssef Dr. Salem Al-Ghamdi	Mgt & Mkt Mgt & Mkt	Quality Management Practices: An Empirical Analysis of Quality Performance in North America and Saudi Arabia
SAB/2005-6	Dr. Farooq Saeed Dr. Ahmed Z. Al-Garni	Aerospace Engg. Aerospace Eng	Numerical Modeling and Analysis of an Aircraft Hot Air Anti-Icing System
SAB/2005-7	Dr. Abul Hasan Siddiqi Dr. Khaled M. Furati	Mathematics Mathematics	Approximation and Related Issues in Time Frequency Analysis (Gabor and Wave Packet Systems)
SAB/2005-8	Dr. Adel Al-Dosary Mr. Shaibu Bala Garba	CRP CRP	Interactive GUI Spreadsheet Application Developments for Population and Employment Projection Models for Saudi Arabia
SAB/2005-9	Dr Shariq Vohra Dr. M. S. Al-Suwaiyan	Civil Engg. Civil Engg.	Treatment of Pretreated Petroleum Refinery Wastewater using Tio2 Assisted Advanced Redox Technology
SAB/2005-10	Dr. M. Nahid Siddiqui Mr. Mirza Ghouse Baig	Chemistry Civil Engg.	Study of Steel Slag Asphalt Mix Chemistry and Its Effect on Local Asphalt Concrete Mixes
SAB/2005-11	Dr. Ameen El-Sinawi Dr. Saif A. Al-Kaabi Dr. Abdelaziz Bazoune	Mech Engg. Mech Engg. Mech Engg.	Experimental Verification of a Kalman Estimator based Developed for Estimating and Monitoring the Vibration of a Cantilevered Beam Mounted on a Compliant Rotating Hub Using Two Dimensional Measurements of Hub (bearing) Vibrations

SAB/ 2005- 12	Dr. Esmail Mokheimer Dr. Maged Al-Shaarawi	Mech Engg. Mech Engg.	Critical Values of Gr/Re for Mixed Convention in Vertical Channels
SAB/ 2005- 13	Dr. Esmail Mokheimer Dr. S. A. M .Said	Mech Engg. Mech Engg.	Modifications of a 10-TR DX A/C Unit into a 10-TR Chiller
SAB/ 2005- 14	Dr. Mehmet Sunar Dr. Yagoub Al-Nassar Dr. Ramazan Kahraman	Mech Engg. Mech Engg. Chemical Engg.	Structural Integrity of Storage Tanks via Stress/Strain Analysis of Bulges
SAB/ 2005- 15	Dr. Khalid Sheltami Mr. Mohammad Abdul Samad	Mech Engg. Mech Engg. Mech Engg.	Five-Axis Tool Path with Anti Gouging Strategy
SAB/ 2005- 16	Dr. Luai Al-Hadhrami	Mech Engg.	Effect of Feeding Channel Aspect Reaction and Out Flow Orientation of Heat Transfer in A Rectangular Channel with Four Orifice Jet Configurations
SAB/ 2005- 17	Dr. Khaled Mezghani Mr. Mohammad Abdul Samad	Mech Engg. Mech Engg.	Effect of Mold Temperature on Mechanical Properties of Polyethylene terephthalate
SAB/ 2005- 18	Dr. Bakir Sami Yilbas Dr. Mehmet Sunar Dr. Zuhair Gasem Mr. Abdul Aleem B. J.	Mech Engg. Mech Engg. Mech Engg. Mech Engg.	Mechanical Properties of TiN Coated and Duplex Treated Ti -6AL-4V
SAB/ 2005- 19	Dr. Osman Abdullatif Dr. Mustafa Hariri	Earth Sciences Earth Sciences	Environmental Impacts of Quarrying and Construction works in the Eastern Region, Saudi Arabia
SAB/ 2005- 20	Dr. Tarek Sheltami Dr. Ashraf Mohammad Dr. Uthman Baroudi	COE COE COE	Real-Time Applications over Ad Hoc Wireless Networks: Design and Implementation
SAB/ 2005- 21	Dr. Mohammad Shafiq Dr. Fouad M. Al-Sunni Mr. Saquib Razak	System Engg. System Engg. ICS	NL Systems Adaptive Tracking Based on the U-Model
SAB/ 2005- 22	Dr. A. Elazouni Dr. A. Bubshait Dr. M. Hassanainin Dr. M. Deriche	CEM CEM ARE Elec.Engg.	Utilization of Pattern Recognition Techniques for Progress Monitoring of Construction Projects
SAB/ 2005- 23	Dr. Ashraf Mohammad Dr. Marwan Abu-Amara Dr. Tarek Sheltami	COE COE COE	Wireless Local Area Networks Integration for Mobile Networks Operators
SAB/ 2005- 24	Dr. Hussain Alzaher Mr. M. K. Al-Ghamdi Mr. Noman Tasadduq	Electrical Engg. Electrical Engg.	CMOS Low Pass Filters for Dual Bluetooth/WLAN Direct Conversion Receiver
SAB/ 2005- 25	Dr. M. A. Bokhari Dr. H. Al-Attas	Math Math	Interpolating Orthogonal Exponential Polynomials

SAB/ 2005- 26	Dr. Suliman Al-Homidan	Math	Semi Definite Programming for Educational Testing Problem
SAB/ 2005- 27	Dr. Samir H. Al-Amer	System Engg.	A Gap-Metric Identification Algorithm for Systems Operating in Feedback
SAB/ 2005- 28	Dr. Khaled Al-Dheyman Dr. Zafarullah Khan Dr. Faleh Al-Sulaiman Dr. Iyad Al-Zaharnah	ME ME ME ME	Study the Low –Velocity Impact Resistance of E-Glass/Polyester Composite Laminates
SAB/ 2005- 29	Dr. A. Elazouni	CEM	Classifying Construction Contractors using Unsupervised Learning Neural Networks
SAB/ 2005- 30	Dr. Kadir Ertogal	System Engg.	Multi Item Inventory Ordering Problem With Transportation Cost
SAB/ 2005- 31	Dr. Abdulwahab S. Alkahtani	Mgt & Mkt	The Creation of Strategic Competitiveness in the New Millennium Internet use by Saudi Small Business
SAB/ 2005- 32	Dr. Razali Bin Mat-Zin Dr. Mourad Mansour	Mgt & Mkt Mgt & Mkt	The Perceived Effects of work and Family Variables on Faculty Performance : A Case of KFUPM
SAB/ 2005- 33	Dr. Nabil M. Maalej Dr. Akhtar Naqvi Mr. Abdullah Al-Kafi	Physics Physics Physics	Optimizing Mamography Grid Design and Imaging Geometry for Tumor Detection
SAB/ 2005- 34	Dr. Amine Nehari Talet	MIS	An Empirical Study of Leading Saudi Company
SAB/ 2005- 35	Dr. A. Bubshait Mr. M. Jalaluddin	CEM CEM	Simulation of Construction Operations using Virtual Reality : Applications for the Planning and Scheduling Processes in the Construction Industry
SAB/ 2005- 36	Dr. Ibelwaleed A. Hussein Dr. Basel Abu Sharkh	Chemical Engg. Chemical Engg.	Influence of Tacticity and Mw on the Compatibility of PP/LDPE Blends: Rheological, Thermal, Mechanical and Molecular Dynamic Simulation Study.
SAB/ 2005- 37	Dr. M. A. Abido	Electrical Engg.	Multiobjective Reactive Power Dispatch and Control
SAB/ 2005- 38	Dr. A. Mimouni	Math	Some Finiteness Conditions on the Set of t-linked over Rings of an Integral Domain
SAB/ 2005- 39	Dr. Muhammad Hawwa Dr. Abdelkader	Mech Engg. Mathematics	Wave Screening in Beams on Periodic Elastic Foundations

	Boucherif		
SAB/ 2005- 40	Dr. Kh. A. Ziq Dr. M. M. Abdelhadi	Physics Hail Community College	Synthesis and Characterization of Colossal Magneto Resistance (CMR) Materials Doped with Magnetic Ions
SAB/ 2005- 41	Dr. Abdalla Abulkibash Dr. M. Emad	Chemistry Chemistry	Mark Space Biased and DC Differential Electrolytic Potentiometry Combined with Flow Injection as a Potential Detector for the Determination of Cyanide
SAB/ 2005- 42	Dr. M. Sadiq Sohail Dr. Nassar Shaikh	Mgt & Mkt MIS	An Analysis of Service Quality in Internet Banking: A Saudi Arabian Perspective
SAB/ 2005- 43	Dr. M. Sadiq Sohail	Mgt & Mkt	The Retailing Sector in Saudi Arabia : An Evaluation of Shoppers Attitudes
SAB/ 2005- 44	Dr. Sheikh Sharif Iqbal Dr. Saad M. Al-Shahrani Mr. Umar Johar	Elec. Engg. Elec. Engg. Elec. Engg.	Design of Active 24-GHz Microstrip Array-antenna for Microwave
SAB/ 2005- 45	Dr. Rabee M. Reffat Dr. Abdulgader Amir Dr. Ashraf M. Salama	ARC ARC ARC	Developing an Integration System to Improve the Utilization of Smart Office Building Technologies in Saudi Arabia
SAB/ 2005- 46	Dr. H. E. Emara-Shabaik Dr. M .A. Habib	System Engg. Mechanical Engg.	Prediction of Tube Overheating in Water Tube Boilers using a Nonlinear Dynamic Model
SAB/ 2005- 47	Dr. Osama Ahmed	Electrical Engg.	Non-Stationary Deconvolution for Better Multiples Elimination Using Wavelet and Time-Frequency Transforms
SAB/ 2005- 48	Dr. Uthman Baroudi Dr. Ashraf Mahmoud	COE COE	Radio Resources Management and CoS Control for Wireless Integrated Services Networks
SAB/ 2005- 49	Dr. M. S. Abdelmonem Dr. A. D. Al-Haidari Dr. H. Bahloui	Physics Physics Physics	Density of States Associated with a Finite Hamiltonian Matrix
SAB/ 2005- 50	Dr. Ibrahim Rahimov Dr. Walid Al-Sabah	Math Math	Branching Stochastic Processes with Continuous Stat-Space and Immigration in Varying Environment
SAB/ 2005- 51	Dr. Abdelslem Lyaghfour	Math	The Heterogeneous Dam Problem with Dirichlet Boundary Conditions. The N dimensional case
SAB/ 2005- 52	Dr. Abul Kalam Azad Dr. Shamshad Ahmad	Civil Engg. Civil Engg.	A Study of the Size Effect of Corroded Reinforced Concrete Beams in Prediction of Residual Strength
SAB/ 2005-	Dr. Abdalla Abulkibash	Chemistry Chemistry	ZSM-5 Acidity Characterization Using Fluorescence probes

53	Dr. Ali El-Rayyes		
SAB/ 2005- 54	Dr. M. H. Shwehdi Dr. Khalid Sheltami	Electrical Engg. Mechanical Engg.	Investigation of Thermal and Electrical Stresses in Underground Cables Used in Distribution Systems
SAB/ 2005- 55	Dr. M. A. Gondal Dr. Z. H. Yamani	Physics Physics	Laser Sensor for Detection of Ozone
SAB/ 2005- 56	Dr. Uthman Baroudi Mr. Hazen Selmi	COE COE	Adaptive TCP Mechanisms for Wireless Networks
SAB/ 2005- 57	Dr. Mahmoud Kassas Dr. Ibrahim Habiballah Dr. Ibrahim El-Amin Mr. S. A. M. Said	Elec. Engg. Elec. Engg. Elec. Engg. Mech. Engg.	Air-Conditioning Load Control at KFUPM Campus
SAB/ 2005- 58	Dr. Amine Nehari Talet	MIS	Is the success of the Companies Linked to the Performance of their Information Systems? An Empirical Study of Leading Saudi Companies
SAB/ 2005- 59	Dr. S. U. Rahman Dr. S. M. J. Zaidi	Chemical Engg. Chemical Engg.	Methanol Permeation through PEMFC : Evaluation of Electrochemical Techniques and Application in Novel Composites Membranes
SAB/ 2005- 60	Dr. A. H. Bokhari Dr. F. D. Zaman	Math Math	Solution of Some Non-Linear Equations Using Symmetry Methods
SAB/ 2005- 61	Dr. Farag Azzedin Dr. Khalid Salah Dr. Malick M. Nadiaye	ICS ICS ICS	Trust Modeling For Peer-To-Peer Systems: Issues and Approaches
SAB/ 2005- 62	Dr. Khaled Al-Dheyman Dr. Amro Al-Qutub Dr. Yaqub Alnassar Dr. Ibrahim Allam	Mech. Engg. Mech. Engg. Mech. Engg. Mec. Engg.	Study the Static Dynamic Properties of AA 6061/ Al ₂ O ₃ PRMMCs Metal Matrix Composites
SAB/ 2005- 63	Dr. Aimen El-Maleh Dr. Sadiq Sait	COE COE	Multi-objective Finite State Machine Encoding using Non-Destructive Evolutionary Algorithms
SAB/ 2005- 64	Dr. Abdelkader Dekdouk Mr. Rufai Raheem	ICS ICS	A Framework to Analyze Web Service Oriented Architecture Based Models

8. PUBLICATIONS IN REFEREED JOURNALS
REPORTED AFTER JULY, 2004

College of Engineering

Civil Engineering

1. "Performance Evaluation of Slow Sand Filters Using Fuzzy Rule-based Modeling," **Sadiq, R., Al-Zahrani, M.A., Sheikh, A.K., Husain, T. and Farooq, S.**, Environmental Modeling & Software, Vol. 19, 2004, pp. 507-515.
2. "Hydraulic Reliability Analysis of Water Distribution System," **Al-Zahrani, M.A. and Syed, J. Laiq**, Journal of The Institution of Engineers Singapore (IES), Vol. 1, 2004, pp. 76-92.
3. "Water Quality Sampling Stations in Al-Khobar Water Distribution System," **Al-Zahrani, M.**, Arab Gulf Journal of Scientific Research, Vol. 22, No. 2, 2004, pp. 60-65.
4. "Stochastic Goal Programming Model for Optimal Blending of Desalinated Water with Groundwater," **Al-Zahrani, M. and Abid, A.**, Water Resources Management, Vol. 18, No. 3, 2004, pp. 339-352.
5. "Inhibition of Atmospheric Corrosion of Mild Steel by Sodium Dihydrogen Orthophosphat Treatment," **A. Al-Mathami, H. Saricimen, R. Kahraman, Mesfer M. Al-Zahrani and S. Al-Dulaijan**, Anti-Corrosion Methods and Materials Journal, Vol. 51, No. 2, 2004, pp. 121-129.
6. "Removal of Dimethyl Phthalate from Water by UV/H₂O₂ Process," **B. Tawabini and M.S. Al-Suwaiyan**, Journal of Environmental Engineering and Science, Vol. 3, No. 4, July 2004, pp 289-294.
7. "Effect of UV-Radiation on the Migration of Vinyl Chloride Monomer from Unplasticized PVC Pipes," **Al-Malack, M.H.**, Journal of Environmental Science and Health-Part A: Toxic/Hazardous Substances & Environmental Engineering, Vol. A39, No. 1, 2004, pp. 145-157.
8. "Selective Transport of Silver Ions Through Crown Ether Supported Membranes," **Ashraf, M.W., Al-Thukair, A. A. and Al-Malack, M.H.**, Oriental Journal of Chemistry, Vol. 20, No. 1, 2004, pp. 1-6.
9. "Crossflow Microfiltration of Electro-coagulated Kaolin Suspension: Fouling Mechanism," **Al-Malack, M.H., Bukhari, A. A. and Abuzaid, N.S.**, Journal of Membrane Science, Vol. 243, 2004, pp. 43-153.
10. "Estimation of Spilled Hydrocarbon Volume: The State-of-the Art," **Saleem, M., Al-Suwaiyan, M., Aiban, S.A., Ishaq, A.M., Al-Malack, M.H. and Hussain, M.**, Environmental Technology, Vol. 25, No. 9, July 2004, pp. 1077-1090.
11. "Tire Condition and Drivers' Practice in Maintaining Tires in Saudi Arabia," **Ratrouf, N.T.**, Accident Analysis & Prevention, Vol. 37, Issue 1, 2005.
12. "Long-Term Performance of FBEC Bars in Chloride-Contaminated Concrete," **Al-Amoudi, O.S.B., Maslehuddin, M., and Mohammed, I.**, ACI Materials Journal,

Vol. 101, No. 4, July-August 2004, pp. 303-309.

13. "Effect of Type and Dosage of Silica Fume on Plastic Shrinkage of Concrete Exposed to Hot Weather," **Al-Amoudi, O.S.B., Maslehuddin, M., and Abiola, T.O.**, Construction and Building Materials, Vol. 18, 2004, pp. 737-743.
14. "Stability of Vertically Bent Pipelines Buried in Sand," J. of Pressure Vessel Technology, **Abduljawwad, S.N., Al-Ghamedy, H.N., Siddiqui, J.A., Asi, I.M. and Al-Shayea, N.A.**, ASME, 126(3), pp. 382-390, Aug. (2004).
15. "Third Order Shear Deformation Model for Laminated Shells with Finite Rotations: Formulation and Consistent Linearization," **Balah, M. and Al-Ghamedy, H. N.**, Acta Meccanica Sinica, 20(5) pp. 484-498, October (2004).
16. "Energy-Momentum Conserving Algorithm for Nonlinear Dynamics of Laminated Shells Based on a Third Order Shear Deformation Theory," **Balah, M. and Al-Ghamedy, H.N.**, J. of Engineering Mechanics, ASCE, Jan., (2005).

Chemical Engineering Department

1. "Thiophene hydrodesulfurization over noble metal modified Co-clay catalysts" **M.M. Hossain, M.A. Al-Saleh, M.A. Shalabi, T. Kimura, T. Inui**, Applied Catalysis A: General, vol.274, p. 43, 2004.
2. "Pd-Rh promoted Co/HPS catalysts for heavy oil upgrading", **M.M. Hossain, M.A. Al-Saleh, M.A. Shalabi, T. Kimura, T. Inui**, Applied Catalysis A: General, vol. xxx., p.yyy, 2004. in press
3. "The effect of Y-zeolite activity on m-xylene transformation reactions", **S. Al-Khattaf, A. Ilyas, A. Al-Amer, T. Inui**, Journal of Molecular Catalysis, A: Chemical, vol. xxx, p.yyy, 2004. in press
4. "Rheological Study of Heterogeneities in Melt Blends of ZN-LLDPE and LDPE: Influence of M_w and Comonomer Type, and Implications for Miscibility", **Ibnelwaleed A. Hussein** and Michael C. Williams, Rheologica Acta **2004**,43(6)602-614.
5. "Study of the Miscibility and Mechanical Properties of NBR/HNBR blends", **Ibnelwaleed A. Hussein, Rehan A. Chaudhry, Basel F. Abu Sharkh**, Polymer Engineering & Science **2004**, 44(12), 2346-2352.
6. "Implications of Melt Compatibility/Incompatibility on Thermal and Mechanical Properties of Metallocene and Ziegler-Natta LLDPE Blends with HDPE: Influence of Composition Distribution and Branch Content of LLDPE", **Ibnelwaleed A. Hussein**, Polymer International **2004**, 53(9), 1327-1335.
7. "Influence of Branch Content on Melt Miscibility of HDPE and Metallocene Octene-LLDPE: MD Simulation Study", **B.S Abu Sharkh, Adam Giri and Ibnelwaleed A. Hussein**, European Polymer Journal **2004**, 40(6), 1177-1182
8. "Rheological Study of the influence of Branch Content on the Miscibility of octene m-LLDPE and ZN-LLDPE in LDPE", **Ibnelwaleed A. Hussein** and Michael C. Williams, Polym. Eng. & Sci. **2004**, 44, 660-672.

9. "Effect of short chain branching of LDPE on its miscibility with linear HDPE", Tayyab Hameed and **Ibnelwaleed A. Hussein**, Macromolecular Materials & Engineering **2004**, 289(2), 198-203.
10. "**Melt Flow Indexer Evidence of High-Temperature Transitions in Molten High-density Polyethylenes**", Ibnelwaleed A. Hussein and **Michael C. Williams, J.** Applied Polym. Sci., 2004, **91(2)**, 1309-1313.
11. "Numerical Simulation of Flow Distribution in Unpacked and Partially Packed Vessels", **H. D. Zughbi and S. Sheikh**, Mathematical and Computational Applications, Vol. 9, No. 1, pp. 25-39, 2004.
12. "Mixing in a Fluid Jet Agitated Tank: Effects of Jet Angle and Elevation and Number of Jets", H. D. Zughbi, and M. A. Rakib, Chem. Eng. Sci., Vol. 54, No. 4, pp. 829-842, 2004.
13. "Decarburisation of Fe/C Melts in a Crucible: Effects of Bath Sulphur Level", H. D. Zughbi. Scandinavian Journal of Metallurgy, Vol. 33, No. 4, 242-250, 2004.

Electrical Engineering

1. "Robust STATCOM Voltage Controller Design Using Loop-shaping Technique", **A.H.M.A. Rahim and M.F. Kandlawala**. Journal of Electric Power Systems Research, Vol. 68. No.1, pp. 61-74, 2004.
2. "A Minimum-time Based Fuzzy Logic Dynamic Braking Resistor Control for Sub-synchronous Resonance", **A.H.M.A. Rahim**. International Journal of Electrical Power and Energy Systems, Vol. 26. No.3, pp. 191-198, 2004.
3. "A genetic Algorithm Solution to A Mew Fuzzy Unit Commitment Problem", **A.H. Mantawy**. Journal of Electric Power Systems Research, Vol. 72. pp. 171-178, 2004.
4. "A genetic-Based Tabu Search Algorithm for Fuzzy Unit Commitment Problem", **A.H. Mantawy**. Engineering Journal of the University of Qatar, Vol.17. pp. 129-138, 2004.
5. "Multi-Channel Subspace Mapping Using An Information Maximization Criterion", **A. Al-Ani, M. Deriche**, Multidimensional Systems and Signal Processing Journal, Vol. 15. No. 2, pp. 117-145 (29), 2004.
6. "A New Iris Recognition Method based on Neural Networks", **M. Moinuddin M. Deriche, & A. Ali**. WSEAS Transactions on Information Science And Applications. Vol.1, No. 6, pp. 1546-1550, Dec. 2004.
7. "Anovel mixed-mode CCII-based filter", **M.T. Abuelma'atti and Abdulwahab Bentrchia**, Journal of Active and Passive Electronic Components, Vol. 27. No. 4, pp. 197-205, Dec. 2004.
8. "Simple solution of generalized planar transmission lines", **Essam Hassan**. Arabian Journal for Science and Engineering (AJSE), Vol. 29. No.2B, PP 127-134, Oct. 2004.

9. "Optical Microscopy of Water Trees in Underground High Voltage Cables", **M. Ahmed, a. Ul-Hamid, M. A. Garwan, M.A. Al-Ohali, Z. Al-Hamouz and K. Y. al-Soufi**, J. Microscopy and Analysis, pp. 25-26, Nov. 2004.
10. "Minimisation of Timing Jitter in CDMA Code Tracking", **M.A. Landolsi**, IEE Electronic Letters, Vol.14, No.21, pp.1352-1353, Vol. 14, No. 21, Oct.2004.
11. "Effect of Cavity enclosure on the resonance characteristics of an inverted microstrip stacked patch antenna", **Sheikh S.I.**, et all. Asia-Pacific Microwave Conference (APMC) 2004, New Delhi India, Dec. 15-18, 2004.

Mechanical Engineering Department

1. "Laser Heating of Carbon/Carbon Reinforced Composite", **Al-Sulaiman, F.A., and Yilbas, B.S.**, Laser in Engineering, Vol. 14, pp. 000-000, 2004.
2. "Machinability of Kevlar 49 Composite Laminates While Using Standard TiN Coated HSS Drills" **A.N. Shuaib, F.A. Al-Sulaiman and F. Hamid**, International Journal of Machining Science and Technology , Vol. 8, No. 3, pp. 449-467, 2004.
3. "Empirical Models of Mechanical & Electrical Drilling Power of Mild Steel", **Faleh Al-Sulaiman, Anwar K. Sheikh and Abdul Baseer**, Journal of Engineering Manufacture Proceedings of the Institution of Mechanical Engineers, Part B, No. 9, Vol. 218, pp. 1181-1189, Sept. 2004.
4. "Entropy generation due to non-Newtonian flow around a spherical particle at low Reynolds number", **Ayinde, T.F. and Yilbas, B.S.**, International Journal of Exergy, Vol. 1, No. 2, 2004, pp. 256-267.
5. "Heat Transfer through a composite wall with a rectangular graybody radiating cavity: A numerical Solution", **Antar, MA and Thomas LC**, ASHRAE Transactions, Vol. 100, Part 2, pp. 36-45.
6. "Study into thermal stresses due to turbulent flow in pipes", **Al-Zaharnah I, Yilbas B.S. and M.S.J. Hashmi**, Heat and Mass Transfer, Vol. 40, pp. 191-202, 2004.
7. "Numerical investigation of transient free jet resembling a laser-produced vapor jet", **Arshad G.M., Shuja S.Z., Yilbas B.S., and Budair M.O.**, Int. J. Heat and Mass Transfer, Vol. 45, pp. 1037-1052, 2004.
8. "Entropy analysis and improved formulation of electron kinetic theory approach for laser shortpulse heating", **Yilbas B.S.**, Numerical Heat Transfer Part B, Vol. 45, pp. 75-98, 2004.
9. "Investigation into laser shock processing", **Yilbas B.S., Arif A.F.M., S.Z. Shuja, M.A. Gondal and J. Shirokof**, ASM J. Materials Engineering and Performance, Vol. 13, pp. 47-54, 2004.

10. "Laser pulse heating and thermal stress developments: elasto-plastic analysis", Proc Instn Mech Engrs, **Yilbas B.S., Khan O., and Naqavi I**, Part B: J. Engineering Manufacture, Vol. 218, pp. 375-388, 2004.
11. "Entropy production due to time exponentially varying laser pulse: convective boundary condition case", **Yilbas B.S.**, Jap. J. Appl. Phys., Vol 43, pp. 2536-2544, 2004.
12. " Laser shortpulse heating of copper: thermo-elasto-plastic analysis", **Arif A.F.M and Yilbas B.S.**, J. Laser Applications, Vol. 16, pp. 111-120, 2004.
13. "Laser Hole Drilling Quality and Efficiency Assessment", **Yilbas B.S. and Abdul Aleem B.J.**, Proc Instn Mech Engrs, Part C: J. Mechanical Engineering Science, Vol. 218, pp. 225-233, 2004.
14. "Laser shock processing of Ti-6Al-4V alloy", **Yilbas B.S., Gondal M.A., Arif A.M.F., and Shuja S.Z.**, Inst. Mech. Engrs, Part B: J. Mechanical Engineering Science, Vol 218, pp. 473-482, 2004.
15. "Thermal stresses due to time exponentially decaying laser pulse: elasto plastic wave propagation", **Yilbas B.S. and Al-Ageeli N.**, Int. J. Mechanical Sciences, Vol. 46, pp. 57-80, 2004.
16. "Entropy analysis for non-Newtonian fluid flow in annular pipe: constant viscosity case", **Yilbas B.S., Yurusoy M and Pakdemirli M.**, Entropy, Vol. 6, pp. 32004-315, 2004.
17. "Convergence of electron kinetic, two-temperature, and one-temperature models for laser short-pulse heating", **Yilbas B.S.**, Applied Physics A, Vol. 79, No. 7, pp. 1775 – 1782, 2004.
18. " Laser Induced Thermal Stresses in Solids: Exponentially Time Decaying Pulse Case", **Yilbas B.S., Ageeli N., and Kalyon M.**, Lasers in Engineering, Vol. 14, 2004.
19. " Formulation of laser pulse heating: a closed form solution including heating and cooling cycles with pulse parameter variation", **Yilbas B.S. and Kalyon M.**,Lasers in Engineering, Vol. 14, No. 3-4, 2004.
20. "Thermal analysis in pipe flow: influence of variable viscosity on entropy generation", **Al-Zaharnah I. and Yilbas B.S.**, Entropy, Vol. 6, pp. 344-363, 2004.
21. "Laser short-pulse heating: influence of laser power intensity on temperature fields", **Yilbas B.S.**, Numerical Heat Transfer, Vol. 46, pp. 255-275, 2004.

Aerospace Engineering

1. "An Iterative Inverse Design Method Based on Aerodynamic Streamline

Equations”, **Yu, J., Saeed F. and Paraschivoiu, I.**, AIAA Paper 2003-0214, AIAA Journal of Aircraft, Vol. 41, No. 4, July-August 2004.

2. “Thermal Analysis of a Cold Rolling Process – A Numerical Approach” **Ovais U. Khan, A. Jamal, G.M. Arshad, A.F.M. Arif and Syed M. Zubair**, Journal of Heat Transfer, Part A 46: 613-632, Oct. 2004.

College of Sciences

Chemistry

1. “Anisotropy of rotation of nitroxide probes in nematogenic liquid crystals”, **Hwang, J. S.; Oweimreen, G. A.**, Applied Magnetic Resonance (2004), 26(3), 387-393.
2. “The effect of N-(4-n-butyl benzilidene) 4-amino 2,2,6,6-tetramethyl piperidine 1-oxide on the nematic-to-isotropic phase transition of 4-n-pentyl-4'-cyanobiphenyl”, **Oweimreen, G. A.; Hwang, J. S.**, Thermochimica Acta (2004), 421(1-2), 225-230.
3. “Silver cyanide complexes of heterocyclic thiones”, **W. Ashraf, S. Ahmad and A. A. Isab**, Transition Metal Chem., 29, 400-42004 (2004).
4. “³¹P NMR Studies of the Redox Reactions of Bis Trialkylphosphine Gold (I) Bromide (where alkyl = methyl and ethyl) with Disulphide and Diselenide Ligands”, **W. Ashraf and A. A. Isab**, J. Coord. Chem., 57, 337-346 (2004).
5. “Acidity Characterization of Tungstophosphoric Acid by using Laser Induced Fluorescence Spectroscopy”, **Ali A. El-Rayyes, Klein, Uwe K.** Chem. Phys. Lett., 397 (2004) 484-487.
6. “Theoretical studies on the structure and hydrogen bonding of 8-amino-1-naphthol and its one water complex”, **Ali A. El-Rayyes, T. H. Maung** , J. Mol. Struct. THEOCHEM., 681(2004) 9-13.
7. “Acidity of all-silica MCM-41 - studied by laser spectroscopy of adsorbed fluorescent probe compounds”, **Ali A. El-Rayyes, A. Al-Arfaj, Klein, Uwe K. A., Barri, S. A. I.**, Catal. Lett. 97 (2004) 83-90.
8. “Theoretical Vibrational Spectra of Organic Ring Compounds Compared to Experiment”, **W. Forner**, International Journal of Quantum Chemistry 99, 533-555 (2004).
9. “Infrared and Raman Spectra of Polyparaphenylene Dimers in Their Aromatic and Quinoidal Forms for the Detection of Bipolarons in the Charge Transport of Conducting Polymer Samples”, **W. Forner and H.M. Badawi**, Journal of Molecular Structure (Theochem) 677, 179-198 (2004)
10. “Normal Coordinate Analyses of 3,5-Dichlorophenylcyanamide”, **H.M. Badawi and W. Forner**, Journal of Molecular Modeling 10, 178-184 (2004)

11. "Analyses of Vibrational Spectra of Nitroso- and Nitroethylenes.", **H.M. Badawi and W. Forner**, Journal of Molecular Structure. (Theochem) 677, 153-160 (2004).
12. "Theoretical Study of Bipolaron Dynamics in Polyparaphenylene: I. Derivation of the Formalism and Density Functional (DFT) Calculations on Neutral and Charged Model Systems", **W. Forner**, Journal of Molecular Structure (Theochem) 682, 115-136 (2004).
13. "Theoretical Potential Scans and Vibrational Spectra of Vinyl Selenonyl Halides $\text{CH}_2=\text{CH}-\text{SeO}_2\text{X}$ (X is F, Cl and Br)", **H.M. Badawi, W. Forner and Z.S. Seddigi**, Journal of Molecular Modeling 10, 250-258 (2004).
14. "Corrosion Inhibition of Carbon Steel in Sulfuric Acid by Bicyclic Isoxazoldines", **Mohammed Tariq Saeed**, Anti-Corrosion Methods and Materials, Vol. 51, No. 6, 2004
15. "Participation of propargyl moiety in Butler's cyclopolymerization process", **Sk. Asrof Ali and Hasan A. Al-Muallem**, Polymer, Polymer 2004, 45(24),8097- 8107.
16. "Synthesis and solution properties of hydrophobically associating ionic polymers made from diallylammoniumsalts/sulfur dioxide cyclo-copolymerization", **Yunusa Umar, Hasan A. Al-Muallem, B. F. Abu-Sharkh, and Sk. Asrof Ali**, Polymer 2004, 45(11), 3651-3661.

Earth Sciences Department

1. "Heavy minerals in the Wajid sandstone from Abha – Khamis Mushayt area, Southwestern Saudi Arabia: Implications on provenance and regional tectonic setting", **Hussain, M., L.O. Babalola and Hariri, M.M.** GeoArabia (2004), 9 (2004), 72-102.
2. "Effect of porous medium heterogeneity on water flow: A stochastic hydrofacies approach", **Makkawi, M.**, Hydrogeology Journal 12 (2004), 481-487.
3. "Evaluation of Swat kaolin deposits of Pakistan for industrial uses", **Siddiqui, M.A., Ahmed, Z. and Saleesin, A.A.** Applied Clay Science 29 (2005), 55-72.
4. "The inverse problem of paleointensity determination", **Abokhodair, A.A.** Phys. Earth Planet. Interiors 147 (2004), 223-238.
5. "Lithologic characteristics and diagenesis of the Devonian Jauf Sandstone at Ghawar Field, Eastern Saudi Arabia", **Al-Ramadhan, K.A., Hussain, M., Imam, B. and Saner, S.** Marine and Petroleum Geol. 21 (2004), 1221-1234.
6. "Spatial distribution, scaling and self-similar behavior of fracture arrays in Los Planes Fault, Baja California Sur, Mexico", **Nieto-Samaniego, A.F., Alaniz-**

Alvarez, S.A., Tolson, G., Oleschko, K., Korvin, G., Xu, S.S. and Pérez-Venzor, J.A. Pure and Applied Geophysics (2004) (In Print)

7. "Fractal and cumulative trace analysis of wire-line logs from a well in a naturally fractured limestone reservoir in the Gulf of Mexico", **Arizabalo, R.D., Oleschko, K., Korvin, G., Ronquillo, G. and Cedillo-Pardo, E.** Geofísica Internacional 43(2004), 467-476.
8. "Is the optical image of a non-Lambertian fractal surface fractal?", **Korvin, G.** IEEE Geosci. Remote Sensing Letters (2004) (In Print)
9. "Correlation of seismotectonic variables and GPS strain measurements in western Turkey", **Öncel, A.O. and Wilson, T.** Journal of Geophysical Research 109 B11306 (2004): doi: 10.1029/2—4B003101.

Mathematics Department

1. On Coreflexive Coalgebras and Comodules over Commutative Rings", **Jawad Y. Abuhlail**, Journal of Pure and Applied Algebra , 194, No.1-2, (2004), 1-38.
2. "Discrete counterparts of continuous-time additive Hopfield-type neural networks with impulses" **H. Akca, R. Alassar, V. Covachev, and Z. Covacheva**, Dynamic Systems and Applications, 13, (2004), 75-90 .
3. "Continuous-time additive Hopfield-type neural networks with impulses, Journal of Mathematical Analysis and Applications", **H. Akca, R. Alassar, V. Covachev, Z. Covacheva, and E.A. Al-Zahrani** Journal of Mathematical Analysis and Applications, 290(2):436-451, Feb. 2004, 290, No. 2, (2004), 436-451.
4. "On Existence of Solutions of Semilinear Impulsive Functional Differential Equations with Nonlocal Conditions", **H. Akca, V. Covachev, and E. Al-Zahrani**, Operator Theory: Advances and Applications, 15, No.3, (2004), 1-11 .
5. "The System of Vector Quasi-Equilibrium Problems with Applications", **Q.H. Ansari, W. K. Chan, and X. Q. Yang**, Journal of Global Optimization, 29, No. 1, (2004), 45-57.
6. "On Generalized Mixed Co-Quasi-Variational Inequalities with Noncompact Valued Mappings", **R. Ahmad, Q.H. Ansari, and S.S. Irfan**, Bulletin of the Australian Mathematical Society, (2004), 70, 7-15.
7. "On Existence of Pareto Equilibria for Constrained Multiobjective Games", **Q. H. Ansari and Z. Khan**, Southeast Asian Bulletin of Mathematics, 27, (2004), 973-982.
8. "Third order nonlocal multipoint boundary value problems", **Z. Benbouziane, A. Boucherif, and S.M. Bouguima**, Dynamic Systems and Applications, 13, No.1, (2004), 39-46.
9. "Solvability of Neumann boundary value problems with Caratheodory nonlinearities", **A. Boucherif and N. Al-Malki**, Electronic Journal of Differential Equations, 51, No.51, (2004), 1-7.

10. "Second order multivalued boundary value problems", **A. Boucherif** and **B. Chanane**, Communications on Applied Nonlinear Analysis, 11, No.1, (2004), 85-91.
11. "On periodic boundary value problems of first order perturbed impulsive differential inclusions", **B.C. Dhage**, **A. Boucherif**, and **S.K. Ntouyas**, Electronic Journal of Differential Equations, 84, (2004), 1-9.
12. "Centralizing mappings and derivations on semiprime rings", **Chaudhry, M.A.** and **Thaheem A.B.**, Demonstratio Mathematica, 37, No.2, (2004). 285-292.
13. "Output Feedback Pole Placement Controller for Delayed Systems", **Ali Cherid**, International Journal of Simulation Modeling, 3, No.2, (2004), 61-68.
14. "Finite dimensional approximation of neutral systems with no - stable root chains", **Y. A. Fiagbedzi**, IMA Journal of Mathematical Control and Information, (2004), 49-64.
15. "The inscribed sphere of an n-simplex", **Y. A. Fiagbedzi** and **M. A. El-Gebeily**, International Journal of Mathematical Education in Science and Technology, 35, No.2, (2004), 261-267.
16. "Real Self-Adjoint Sturm-Liouville problems" **M.A. El-Gebeily** and **K.M. Furati**, Applicable Analysis, 8, No.4, (2004), 377-387.
17. "On comparison of operator theoretic method with regularization method of ill-posed problems", **M. Iqbal** and **A.A. Al-Shuaibi**, International Journal of Pure and Applied Mathematics, 14, No.4 (2004), 421-437.
18. "General class of estimators in multicharacter surveys", **S. Singh**, **I.S. Grewal**, and **A.H. Joarder**, Statistical Papers, 45, (2004), 571-582.
19. "On the dispersion of data in nonsymmetric distributions", **L. Barone**, **G.Z. Voulgaridis**, and **A.H. Joarder**, International Journal of Mathematical Education in Science and Technology, 35, No.3, (2004), 419-424.
20. "Essential domains and two conjectures in dimension theory", **M. Fontana** and **S. Kabbaj**, Proceedings of the American Mathematical Society, 132, No.9, (2004), 2529-2535.
21. "Trivial extensions defined by coherent-like conditions", **S. Kabbaj** and **N. Mahdou**, Communications in Algebra, 32, No.10, (2004), 3937-3953.
22. "Some generalizations of Ky Fan's best approximation theorem", **A.R. Khan**, **N. Hussain**, and **A.B. Thaheem**, Analysis in theory and applications, 20, No. 2, (2004), 189-198.
23. "On some properties of Banach operators ,II", **A.B. Thaheem** and **A.R. Khan**, International Journal of Mathematics and Mathematical Sciences, 47, (2004), 2513-2515.
24. "Random coincidence point theorem in Frechet spaces with applications", **A.R. Khan** and **N. Hussain**, Stochastic Analysis and Applications, 22, No.1, (2004), 155-167.

25. "Approximation of *-nonexpansive random multivalued operators on Banach spaces" **I. Beg, A.R. Khan, and N. Hussain**, Journal of the Australian Mathematical Society, 76, (2004), 51-66.
26. "Numerical investigation of the penetration of a rigid body into the soil", **A. Kharab and R. Kharab**, International Journal of Pure and Applied Mathematics, 12, No.3, (2004), 255-265.
27. "On certain finite semigroups of order-decreasing transformations I.", **A. Laradji and A. Umar**, Semigroup forum, 69, (2004), 184-200.
28. "On the number of nilpotents in the partial symmetric semigroup", **A. Laradji and A. Umar**, Communications in Algebra, 32, (2004), 3017-3023.
29. "Combinatorial results for semigroups of order-preserving partial transformations", **A. Laradji and A. Umar**, Journal of Algebra, 278, (2004), 342-359.
30. "Combinatorial Results for Semigroups of Order-Decreasing Partial Transformations", **A. Laradji and A. Umar**, Journal of Integer Sequences, 7, 14pp, (2004).
31. "Exponential decay of solutions to a viscoelastic equation with a nonlinear localized damping", **S. Berrimi and S. A. Messaoudi**, Electronic Journal of Differential Equations, 88, (2004), 1-10.
32. "Blow up of solutions with positive energy in nonlinear thermoelasticity with second sound", **S. A. Messaoudi and B. Said-Houari**, Journal of Applied Mathematics, 3, (2004).
33. "Blow up of solutions of a class of wave equations with nonlinear damping and source terms", **Messaoudi S. and Said-Houari, B.**, Math. Methods Appl. Sc., 27, (2004), 1687-1696.
34. "The structure of harmonic morphisms with totally geodesic fibres", **M. T. Mustafa**, Communications in Contemporary Mathematics, 6, No.3, (2004), 419-430.
35. Exact Bahadur Slope for Combining Independent Tests for Exponential Distribution using Simple Random Sampling and Ranked Set Sampling Data", **W. Abu-Dayyeh, M. A. Al-Momani, and H. A. Muttlak**, Journal of Statistical Theory and Applications, 3, No.2. (2004), 159-172.
36. "Investigating the Use of Quartile Ranked Set Samples for Estimating the Population Mean", **H. A. Muttlak**, Applied Mathematics and Computation, 150, (2004) 543-554.
37. "Statistical quality control chart for mean using DRSS", **M. Abujiya and H.A. Muttlak**, Journal of Applied Statistics, 31, No.10, (2004), 1185-1201.
38. "Relationship Between the Solution of BBGK-Hierarchy of Kinetic Equations and the Particle Solution of Vlasov Equation", **M. Yu Rasulova and A.H. Siddiqi**, Journal of Dynamical Systems & Geometric Theories, 2, (2004), 17-22.

39. "Wind Speed Simulation Using Wavelet", **A.H. Siddiqi, S. Khan, and S. Rehman**, American Journal of Applied Sciences, 2, No. 2, (2004), 557-564.
40. "Long time behavior for a viscoelastic problem with a positive definite kernel", **N.E. Tatar**, Australian Journal of Mathematical Analysis and Applications, 1, (2004), 1-11.
41. "An existence result for a nonlocal fractional differential problem", **K.M. Furati and N.E. Tatar**, Journal of Fractional Calculus, 26, (2004), 43-51.
42. "Existence and asymptotic behavior for a convection problem", **K.M. Furati, M. Kirane, and N.E. Tatar**, Nonlinear Analysis T.M.A., 59, No.3, (2004), 407-424.
43. "The decay rate for a fractional differential equation", **N.E. Tatar**, Journal of Mathematical Analysis and Applications, 295, (2004), 303-314.
44. "Blow up for the wave equation with a nonlinear dissipation of cubic convolution type in R^n ", **N.E. Tatar**, Applied Mathematics and Computation, 148, No.3, (2004), 759-771.
45. "Extinction and asymptotic behavior of solutions to a system in biology", **M. Kouche and N.E. Tatar**, Zeitschrift fur Analysis und ihre Anwendungen, 23, No.1, (2004), 17-38.
46. "On the wave equation with a dissipation and a source of cubic convolution type in R^n .", **N.E. Tatar**, Demonstration Mathematica, 37, (2004), 543-555..
47. "Investigation of the initial inverse problem in the heat equation", **K. Masood and F.D. Zaman**, Journal of Heat Transfer, 126, (2004), 294-296.
48. "Initial inverse problem in a two-layer heat conduction model", **K. Masood and F.D. Zaman**, Arabian Journal for Science and Engineering, 29(1B), (2004), 3-12.
49. "Initial inverse problem in a two-layer heat conduction model", Arabian Journal for Science and Engineering, 29(1B), (2004), 3-12.
50. "Computer Aided Learning of Mathematics: The case of software evaluation", **B. Yushau, M. Bokhari, and D.C.J. Wessels**, Mathematics and Computer Education Journal, 38, No.2, (2004), 165-185.
51. "Using Math CAD to teach one-dimensional graphs", **B. Yushau**, International Journal of Mathematical Education in Science and Technology, 35, No.4, (2004), 523-529.
52. "On the Cardinality of Semistar operations on Integral domains", **A. Mimouni and M. S. Samman**, Communications in Algebra, 32, (2004), 1-12.
53. "Extended hypergeometric and confluent hypergeometric functions", **M. Aslam, A. Qadir and H.M. Srivastava**, Applied Mathematics and Computation, 159, (2004), 589-602.

Physics

1. Optical Microscopy of Water Trees in HV Cables" **M. Ahmed, M. A. Al-Ohali, M. Garwan**, Z. Al-Hamouz and K. Soufi. Microscopy and Analysis, 18, 25-26, 2004.
2. "A study of thin films of V_2O_5 containing molybdenum from an evaporation boat", **M. F. Al-Kuhaili, E. E. Khawaja, S. M. A. Durrani**, and D. C. Ingram. Thin Solid Films, 460, 30 (2004).
3. "Characterization of hafnium oxide thin films prepared by electron beam evaporation", **M. F. Al-Kuhaili, S. M. A. Durrani, and E. E. Khawaja**, J. Phys. D: Appl. Phys., 37, 1254 (2004).
4. "Dielectric/Ag/dielectric coated energy-efficient glass windows for warm climates", **S. M. A. Durrani, E. E. Khawaja, A. M. Al-Shukri and M. F. Al-Kuhaili** Energy and Buildings, 36, 891 (2004).
5. "A new spherical Bessel function result related to quantum mechanical scattering theory", H. M. Srivastava, and **H. A. Mavromatis**. Int. J. of Theor. Phys. 43, pp. 497-52004 (2004).
6. "Analysis of Phosphate Rock Samples for Vanadium using Accelerator-based Thermal neutrons", **Khiari F. Z., A. Aksoy, A. Sahin**. Journal of Radioanalytical and Nuclear Chemistry, Vol. 261, No. 3, 507-511(2004).
7. "Enhanced decoking of a coked zeolite catalyst using a glow discharge in Ar-O₂ gas mixture", **M. A. Khan and A. Al-Jalal**, Applied Catalysis A: General, Vol. 272, pp. 141-149, 2004.
8. "Performance of a laser-based ultrasonic detector using a Confocal Fabry-Perot interferometer", **A. Al-Jalal and M. A. Khan**. The e-Journal of Non-Destructive Testing, Vol. 9, No. 3, 2004.
9. "Effect of Si incorporation on the properties of niobium nitride films deposited by DC reactive magnetron sputtering" Benkahoul, M.; Sandu, C. S.; **Tabet, N.**; Parlinska-Wojtan, M.; Karimi, A.; Levy, F. Surface and Coatings Technology 188-189 (2004), 435-439.
10. "Photoluminescence and photodissociation properties of pure and In₂O₃ doped ZnO nanophases" N. Boulares , K. Guergouri , R. Zouaghi , **N. Tabet** , A . Lusson, F. Sibieude and C. Monty, Physica Stat. Solidi a. 201-10 (2004) 2319.
11. "Local structure and redox state of vanadium in strontium-vanadate glasses " **G.D. Khattak, and N. Tabet**, Journal of Electron Spectroscopy and Related Phenomena, 136, 3, (2004) 257.
12. "Surface Investigation on Thermal Stability of Tungstophosphoric Acid Supported on MCM-41 Using Synchrotron Radiation" **Pasl A. Jalil, N. Tabet, M., Faiz, N.M. Hamdan, Z. Hussain**. Applied Catalysis A, 257 (2004)1.

13. "Hourly temperature forecasting using abductive networks", **Abdel-Aal R. E.**, Engineering Applications of Artificial Intelligence, Vol. 17, pp. 543-556, 2004.
14. "Experimental evaluation of performance improvements in abductive network classifiers with problem decomposition" **Abdel-Aal R. E.**, Neurocomputing, Vol. 61, pp. 193-215, 2004.
15. "Abductive network committees for improved classification of medical data", **Abdel-Aal R. E.**, Methods of Information in Medicine, Vol. 43, pp. 192-201, 2004.
16. "X-ray Photoelectron Spectroscopy Study of Copper Tellurite Glasses", **Khattak GD, Mekki A, Al-Shukri A**, Physica Scripta 70 (2004) 187.
17. "Local Structure and Redox State of Copper in tellurite Glasses", **Khattak GD, Mekki A**, Wenger LE, Journal of Non-Crystalline Solids 337 (2004) 174
18. "X-ray Photoelectron Spectroscopy Study of CeO₂-Na₂O-SiO₂ Glasses" **Mekki A.**, Journal of Electron Spectroscopy & Related Phenomena 142 (2005) 75.
19. "Photoacoustic Spectrometry For Trace Gas Analysis and Leak Detection Using Different Cell Geometries" **Gondal, M. A.**, M. H. Shwehdi and A. Dastgeer TALANTA Vol 62, 131(2004).
20. "Photocatalytic Transformation of Methane into Methanol under UV Laser Irradiation over WO₃, TiO₂ and NiO Catalysts", **Gondal, M. A.**, A. Hameed , **Z. H. Yamani** and A. Arfaj, Chem. Phys. Letters Vol 392, 377(2004).
21. "Hydrogen Generation by Laser Transformation of Methanol using n-type WO₃ Semiconductor Catalyst", **Gondal, M. A.**, A. Hameed , **Z. H. Yamani** J. Molecular Catalysis A, V222, 259(2004).
22. "Laser shock processing of Ti⁶Al⁴Va, PIME" Yilbas B.S., **M.A. Gondal**, Arif A.F.M., S.Z. Shuja, J. Engineering Manufacturing V 218, 473 (2004).
23. "Effect of Transition Metal Doping on Photocatalytic Activity of WO₃ under Laser Illumination: Role of 3d-orbitals" A. Hameed, **Gondal, M. A.** and **Z. H. Yamani**, Catalysis Communication V5, 715 (2004).
24. "Selective Laser enhanced Photocatalytic Reduction of CO₂ into Methanol" H. Yahaya, **M. A. Gondal** , A. Hameed , Chem.Phys. Letts V 400, 206 (2004).
25. "Laser Induced Photocatalytic Generation of Hydrogen and Oxygen Over NiO and TiO₂". A. Hameed and **Gondal, M. A.**, J. Molecular Catalysis, Vol 219, 109 (2004).

26. "Laser Induced Photocatalytic Oxidation of Water: Activity Comparison of α -Fe₂O₃, WO₃, TiO₂ and NiO Catalysts" **Gondal, M. A.**, A. Hameed, **Z.H. Yamani** and A. Al-Suwaiyan, Chemical Physics Letters, Vol 385, 111 (2004).
27. "Production of Hydrogen and Oxygen by Water Splitting Using Laser Photocatalysis, over Fe₂O₃", **Gondal, M. A.**, A. Hameed, **Z.H. Yamani**, and A. Al-Suwaiyan, Applied Catalysis A, Vol 268, 159 (2004).
28. "Investigation into laser shock processing" Yilbas B.S., Arif A.F.M., S.Z. Shuja, **M.A. Gondal** and J. Shirokhof, ASM J. Materials Engineering and Performance Vol 13, 47 (2004).
29. "The Radioactivity of the Gas and Kerosene lamp mantles" **Al-Jarallah, M.I.** Atom and Development, AAEA, Vol. 16, No. 3, December 2004 (ARABIC)

College of Computer Science & Engineering

Information & Computer Science

1. "An Empirical Study of System Design Instability Metric and Design Evolution in an Agile Software Process", **Alshayeb, M. and Wei Li**, Journal of Systems and Software, 74(3), 269-274 (2004).
2. "Representing Shapes by Fitting Data using an Evolutionary Approach", **Sarfraz, M.**, International Journal of Computer-Aided Design & Applications, 1(1-4), 179-186, (2004).
3. "Interactive Shape Control with Rational Cubic Splines", **Habib, Z., Sakai, M., and Sarfraz, M.**, International Journal of Computer-Aided Design & Applications, 1(1-4), 709-718 (2004).
4. "An Automatic Algorithm for Approximating Boundary of Bitmap Characters", **Sarfraz, M. and Khan, M. A.**, Future Generation Computer Systems, Elsevier Science, Vol. 20, 1327 – 1336, (2004).
5. "Weighted Nu Splines with Local Support Basis Functions", **Sarfraz, M.**, International Journal of Computers & Graphics, Elsevier Science, 28(4), 539-549 (2004).

Computer Engineering Department

1. "E-Commerce in Saudi Arabia: Adoption and Perspectives," **Sadiq M. Sait, Khalid M. Al-Tawil, Syed Ali Hussain**, Australasian Journal of Information Systems, , Volume 12, Number 1, ISSN 1039-7841, September 2004.

2. "A Fuzzy Simulated Evolution Algorithm for Topology Design of Campus Networks", **Habib Youssef, Sadiq M. Sait, and Salman A. Khan**, Arabian Journal for Science and Engineering, Vol 29, No. 2b, October 2004. KFUPM Press, pp. 195-212.
3. "Adaptive Pre-Task Assignment Scheduling Strategy for Heterogeneous Distributed Raytracing System", **K. Qureshi, A.R. Naseer and H. Rashid**, Journal IEICE Electronics Express, Vol. 1, No. 13, October 2004, pp 373-379.
4. "Fuzzified Ant Colony Optimization Algorithm for Efficient Combinational Circuits Synthesis", **Sarif, B.A.B., Abd-El-Barr, M., Sait, S.M., Al-Saiari, U.** Evolutionary Computation, 2004, CEC 2004, Congress, Vol. 2, June 19-23, 2004, pp. 1317-1324.
5. "Enhanced Simulated Evolution Algorithm for Digital Circuit Design Yielding Faster Execution in a Larger Solution Space", **Sait, S.M., Al-Ismail, M.**, Evolutionary Computation, 2004, CEC 2004 Congress, Vol. 2, June 19-23, pp. 1794-1799.

Systems Engineering Department

1. "The Distribution-Free Newsboy Problem: Extensions to the Shortage Penalty Case", **H.K. Alfares, H. Elmorra**, International Journal of Production Economics, Vol. 93-94, pp. 465-477, 2005
2. "Simulation of Transient Flow in Pipelines for Computer-Based Operations Monitoring", **H.E. Emara-Shabaik, Y.A. Khulief, I. Huessini**, International Journal for Numerical Methods in Fluids, pp. 44:257-275, 2004
3. "Integrated Single Vendor Single Buyer Model with Stochastic Demand and Variable Lead Time", **M. Ben-Daya**, International Journal of Production Economics, pp. 92:75-80, 2004
4. "Replenish-Up to Inventory Control Policy with Random Replenishment Intervals", **K. Ertogral, M. Rahim**, International Journal of Production Economics, Vol. 93-94, pp. 399-405, 2004
5. "A New Theory for a Fast and Cost-Effective Frequency Response Estimation of Systems", **L. Cheded**, IEE proceedings of Vision, Image and Signal Processing (Accepted for publication)
6. "Turnaround Maintenance in Petrochemical Industry: Practices and Suggested Improvement", **S.O. Duffuaa, M. Ben-Daya**, Journal of Quality in Maintenance Engineering (JQME), Vol. 3, 2004
7. "Integrating SPC, EPC and Taguchi's Quality Engineering", **S.O. Duffuaa, S.N. Khursheed, S.M. Noman**, International Journal of Production Research, Vol. 42, No. 19, 2004

College of Industrial Management

Department of Management & Marketing

1. "Quality Practices in the Logistics Function in an Emerging Southeast Asian Nation". **Sohail, Sadiq. M**, Sohal, A.S. and Millen, R. International Journal of Quality and Reliability Management, (Emerald-MCB), Vol. 21, Issue 4 pp 397-411(2004).
2. "Influence of Ethnicity in Students' Sales Career Preference: Some Observations from a Developing Multi-Racial Country". **Sohail, Sadiq. M**. Problems and Perspectives in Management. Vol. 1 pp 248-256, (2004).
3. "Entrepreneurship in Multinational Subsidiaries: Perspectives from a Developing Nation". **Sohail, Sadiq. M** and Ayadurai, Malar. Journal of Management and World Business Research. Vol. No 1 2004 pp. 47-59, (2004).
4. 'Consumer evaluation of products made in China: A Malaysian Perspective', **Sohail, Sadiq. M** Journal of International Business and Entrepreneurship Development. Vol. 2 No. 1, pp. 13-19, .(2004),
5. "Student Attitudes to Careers in Sales: A Malaysian Perspective". Sohail, Sadiq. M and Bradmore, Don." Malaysian Management Review, (Forthcoming-December 2004 issue) (2004)
6. "Privatization of Postal Services in Malaysia" **Sohail, Sadiq. M** and Mani International Journal of Family Business (Forthcoming- Vol. 1 Issue #2). (2004).
7. "Perceptions of Professional Engineers Toward Quality of Work-life and Organizational Commitment: A Case Study," **Mat Zin, Razali, Gadjah Mada** International Journal of Business, Vol. 6, No. 3, September, 2004, 323-334.

College of Environmental Design

Architectural Engineering Department

1. "The Effectiveness of Thermal Insulation in Different Types of Buildings in Hot Climates ", **Al-Homoud, M. S.**, 2004. Journal of Thermal Envelope and Building Science, Vol. 27, No. 3 (January), pp. 235-247.
2. Assessing Safety Measures in Residential Buildings in Saudi Arabia". **Al-Homoud, M. S.** and M. Khan, 2004 The International Journal of Building Research & Information, Vol. 32, No.4 (July-August), pp. 300-305.
3. "Safety Design Practices in Residential Buildings in Saudi Arabia". **Al-Homoud, M. S.**, A. A. Abdou, and M. Khan, 2004. The International Journal of Building Research & Information, Vol. 32, No. 6 (November-December), pp. 538-543.
4. "Performance Characteristics and Practical Applications of Common Building

Thermal Insulation Materials". **Al-Homoud, M. S.**, 2005, Building and Environment, Vol. 40, No. 3 (**2005**), pp. 351-364.

9. PUBLICATIONS IN CONFERENCE PROCEEDINGS REPORTED AFTER JULY, 2005

College of Engineering

Civil Engineering

1. “Planning, Design, Operation, Closure, and Post-Closure Requirements for the Sanitary Landfills”, **Vohra, M.S., and Al-Suwaivan, M.S.**, Third Saudi Technical Conference & Exhibition, Riyadh 11-15 December 2004.
2. “Elasto-Damage Model for High Strength Concrete Subjected to Uniaxial Cyclic Compression”, **Khan, A. R., Al-Gadhib, A. H. and Baluch, M. H.**, Proceedings of the 2004 SEM X, International Congress and Exposition on Experimental and Applied Mechanics, Costa Mesa, California, June 2004.
3. “Elasto-Damage Constitutive Model for Unidirectional CFRP Subjected to Uniaxial Cyclic Tension”, **Al-Gadhib, A. H., Khan, A. R. and Baluch, M. H.**, Proceedings of the 2004 SEM X, International Congress and Exposition on Experimental and Applied Mechanics, Costa Mesa, California, June 2004.
4. “Predicting Strength Loss Ascribed to Gypsum Formation in Concrete Exposed to Sulfate Environment”, **Shazali, M. A., Baluch, M. H. and Al-Gadhib, A. H.**, (invited Keynote but could not go due to time constraints), Proceedings of 7th Internaitonal Conference on Concrete Technology in Developing Countries, Eds. Al-Mattarnah, H., Kamaruddin, K, and Ruslan, A., Kuala Lumpur, Oct. 2004, pp. 157-168.
5. “Strengthening of Rectangular-Rounded Columns with Inferior Concrete mix Using Composite Fabric”, **Al-Gadhib, A. H., Baluch, Rahman, M. K., Al-Faleh, M. A. and Al-Ghamdi, M. A.**, Proceedings of 7th Internaitonal Conference on Concrete Technology in Developing Countries, Eds. Al-Mattarnah, H., Kamaruddin, K, and Ruslan, A., Kuala Lumpur, Oct. 2004, pp. 181-188.
6. “Moisture Transport Model for Crack Free Concrete”, **Rahman, M. K., Baluch, M. H., Al-Gadhib, A. H. and Zafar, S.**, (Keynote talk by Dr. Rahman), Proceedings of 7th Internaitonal Conference on Concrete Technology in Developing Countries, Eds. Al-Mattarnah, H., Kamaruddin, K, and Ruslan, A., Kuala Lumpur, Oct. 2004, pp. 2-27.
7. “Uncertainty in Water Distribution System Modeling,” **Al-Zahrani, M.A., Al-Azhar Engineering Eighth International Conference**, Cairo, Egypt, December 24-27, 2004. (Accepted).
8. “A Step Towards National Reliance Using Locally Produced Activated Carbon from Dates,” **Essa, M.H., Al-Zahrani, M.A., and Nesaratnam, S.**, Third Saudi Technical Conference and Exhibition (STCEX-3), Riyadh, Saudi Arabia, 2004.

9. "Durability Performance of Three Types of GFRP Bars Under Accelerated Exposure Conditions," **Mesfer M. Al-Zahrani, Saleh H. Alidi, Salah U. Al-Dulaijan and Mohammed H. Al-Mehthel**, 7th International Conference on Concrete Technology in Developing Countries, Kuala Lumpur, Malaysia, 5-8 October, 2004.
10. "Planning, Design, Operation, Closure and Post-Closure Requirements for the Sanitary Landfills," **Vohra, M.S. and Al-Suwaiyan, M.S.**, Third Saudi Technical Conference, December 2004.
11. "The Effect of Speed Limit on Traffic Violations," **Mubayadh, S. and Ratrout, N.**, The 2nd National Conference on Traffic Safety, Riyadh, September 2004.
12. "The Relationship between the Road and Traffic Violations", **Al-Ahmadi, H., Al-Ofi, K. and Ratrout, N.**, The 2nd National Conference on Traffic Safety, Riyadh, September 2004.
13. "Elastic-Plastic Analysis of Cap-Plated Industrial Frames," **El-Boghdadi, M. and Azad, A.K.**, Third International Conference on Advances in Structural Engineering and Mechanics (ASEM'04), Seoul, Sept. 2004.
14. "Solar Energy on Alternate Source of Electricity Generation for Remote Applications," **Shafiqur Rehman, Shash, Ali A., and Al-Amoudi, O.S.B.**, 6th International Conference and Exhibition on Chemistry in Industry (CHEMINDIX 2004), Bahrain, September 27-29, 2004, accepted for publication.
15. "Predicting Strength Loss Ascribed to Gypsum Formation in Concrete Exposed to Sulfate Environment," (invited Keynote), **Shazali, M.A., Baluch, M.H. and Al-Gadhib, A.H.**, Proceedings of 7th International Conference on Concrete Technology in Developing Countries, Eds. Al-Mattarnah, H., Kamaruddin, K. and Ruslan, A., Kuala Lumpur, Oct. 2004, pp. 157-168.
16. "Strengthening of Rectangular-Rounded Columns with Inferior Concrete Mix Using Composite Fabric," **Al-Gadhib, A.H., Baluch, M.H., Rahman, M.K., Al-Faleh, M.A. and Al-Ghamdi, M.A.**, Proceedings of 7th ICCT, Eds. Al-Mattarnah, H., Kamaruddin, K. and Ruslan, A., Kuala Lumpur, Oct. 2004, pp. 181-188.

Chemical Engineering

1. "Compatibilized m-LLDPE/LDPE Blends", Tayyab Hameed, **Ibnelwaleed A. Hussein**, Proceedings of the 6th International Conference and Exhibition on Chemistry in Industry, Bahrain, Sept. 27-29, 2004.

2. "Implications of melt Miscibility on Thermal and Mechanical Properties of metallocene LLDPE Blends with HDPE: Influence of Comonomer Type, **Ibnelwaleed A. Hussein**, Presented at the 20th Meeting of the Polymer Processing Society, Akron, OH, June 20-24, 2004.
3. "Basel F. Abu Sharkh, "Influence of Molecular Parameters and Processing Conditions on the Rheology of Hydrogenated Nitrile Butadiene Rubbers", Rehan A. Chaudry, **Ibnelwaleed A. Hussein**, Presented at the 20th Meeting of the Polymer Processing Society, Akron, OH, June 20-24, 2004.
4. "Study of the Miscibility and Mechanical Properties of NBR/HNBR blends", **Ibnelwaleed A. Hussein**, Rehan A. Chaudhry, Basel F. Abu Sharkh, Presented at the 20th Meeting of the Polymer Processing Society, Akron, OH, June 20-24, 2004.
5. "The Singular-point Technology Leads to Sustainable Development of Petroleum Industry in Saudi Arabia", **Inui, T.**, First Meeting in 2004 of Saudi Arabian Section-AIChE, Dhahran Saudi Arabia, March 16, 2004.
6. "Novel Synthesis Routes for Ultra Clean Fuels" **Inui, T.**, 6th International Conference on Chemistry in Industry, Bahrain, 24-27, September, 2004.
7. "Novel Synthesis Routes for Ultra Clean Fuels through Ultra-Rapid Synthesis of Syngas as the Triger Technology", **Inui, T.**, 14th Annual Saudi-Japanese Symposium on Catalysts in Petroleum Refining & Petrochemicals, The Research Institute of King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, December 5-6, 2004.
8. "Performance of Novel Ni-based Composite Catalyst Used in Thermo-neutral Dry Reforming for Applying to High-temperature Fuel Cells" **Inui, T.**, The 2nd Workshop on Catalysts Applications in the GCC Countries, University of Sharjah, SHarjah, United Arab Emirates, December 13-15, 2004.
9. "Simulation of a Continuous Catalyst Regeneration Reactor", **A. Kareeri, H. D. Zughbi and H. Al-Ali**, CHEMECA 2004, Sydney, Sep. 26-29, 2004.
10. "Mixing in a Liquid Jet Agitated Tank: Effects of Tank Bottom", **S. Siddiqui, H. D. Zughbi and A. I. Fatehi**, CHEMECA 2004, Sydney, Sep. 26-29, 2004.
11. "Simulation of Flow and Chemical Reactions in a Claus Converter", **S. A. Razzak and H. D. Zughbi**, CHEMECA 2004, Sydney, Sep. 26-29, 2004.

Electrical Engineering Department

1. "STATCOM-Based Damping Stabilizers for Power System Stability Enhancement", **M. A. Abido, Ch. Weindl, and G. Herold**, Proceedings of The 11th International Conference EPE-PEMC'2004, Riga, Latvia, September 2 – 4, 2004, CD ROM.
2. "Multiobjective Optimal power flow using strength pareto Evolutionary Algorithm," **M. A. Abido**, Proceedings of the 39th International Universities Power Engineerinf Conference, UPEC'2004, Bristol, UK, September 6–8, 2004.

3. "Robust AGC Tuning of Interconnected Reheat Thermal Systems," **M. A. Abido and Y. L. Abdel-Magid**, *Proceedings of The 2nd IEEE GCC Industrial Electrical Electronics Conference*, Manama, Bahrain, November 23-25, 2004, CD ROM.
4. "Dynamic Stability Effect On Increasing The Power Transfer Limit Of The Interconnection Between Eastern and Central Saudi Arabia," **M. A. Abido, Y. L. Abdel-Magid, E. Zaki, and A. Al-Mulhim**, *Proceedings of The 14th GCC-CIGRE*, Kuwait, December 1-2, 2004, pp. 33-50.
5. "On the development of non conventional surface reflector antennas", **Essam Hassan and Hassan Ragheb**, presented and published in the 2nd IEEE-GCC meeting, Bahrain, Nov. 2004.
6. "Design of A Short-Length Reflection Mode TE-Pass Polarization Filter" **Muhammad Ajmal Khan and Hussain A. Jamid**, *2nd IEEE-GCC Conference, Bahrain*, pp. 601-604, 23-25 November 2004.
7. "A review of electric utility's experiences with polymeric insulators", **K. Y. Al-Soufi and I. O. Habiballah**, *the GCC CIGRE's 14th annual seminar on Transmission Lines Design & Operation*, Kuwait 1 - 2 December 2004.
8. "A Fuzzy STATCOM Control for power System Damping Enhancement", **A.H.M.A Rahim, S.A.Al-Baiyat and M.F Kandlawala**, *2nd GCC-IEEE Conference*, Nov. 23 – 25, 2004, Manama, Bahrain.
9. "Effect of Cavity enclosure on the resonance characteristics of an inverted microstrip stacked patch antenna", **Sheikh S.I.**, et all *APMC 2004, New Delhi, India*, December 15-18, 2004.
10. "A Novel Approach for the Convergence Analysis of the LMF Algorithm", **A. Zerguine**, *EUSIPCO-2004, Vienna, Austria*, September 6-10, 2004.
11. "Echo Cancellation Using a Variable Step-Size NLMS Algorithm", **A. I. Sulyman and A. Zerguine**, *EUSIPCO-2004, Vienna, Austria*, September 6-10, 2004.
12. "Design of a Wireless LAN on Campus," **Salam Zummo, Haitham Tayyar and Maan Kousa**, *Proceedings of The 2nd IEEE GCC Industrial Electrical Electronics Conference*, Manama, Bahrain, November 23-25, 2004, CD ROM.
13. "Throughput Analysis of ARQ Protocols in Rayleigh Block Fading Environments," **Salam Zummo**, *Proceedings of The 2nd IEEE GCC Industrial Electrical Electronics Conference*, Manama, Bahrain, November 23-25, 2004, CD ROM.

14. "Outage Probability of Wireless Networks with Directional Antennas," Peng-Cheng Yeh, Wayne Stark and **Salam Zummo**, *Military Communications Conference, (MILCOM'04)*, Monterey, USA, 2004.
15. "Error Probability of Coded Multi-Antenna Systems in Block Fading Environments," **Salam Zummo and Wayne Stark**, *IEEE Int'l Conference on Communications, (ICC'04)*, Paris, France, pp. 937-941, 2004.
16. "Particle-Swarm-Based Robust Coordinated Design of PSS and SVC-Based Stabilizer,' **Ali T. Al-Awami, Youssef. L. Abdel-Magid, M. A. Abido** Accepted for publication in The 2nd IEEE-GCC Conference and Exhibition, Manama, Bahrain, 23-25 Nov, 2004.
17. 'A New Particle Swarm Algorithm for the Economic Dispatch Problem,' A. H. Mantawy, Ali Al-Awami, M. H. Shwehdi, 12th Iranian Conference in Electrical Engineering, Mashhad, Iran, 12-14 May 2004.
18. "The Effect of Users' grouping on the Linear Group-wise SIC", **Abdelouahab. Bentrchia, A. Zerguine and A. U. Sheikh**, TENCON 2004, 21-24 November, 2004, Chiang Mai, Thailand.
19. "Successive Interference Cancellation Using Stage-Dependent Decision Functions", **Abdelouahab. Bentrchia, A. Zerguine and A. U. Sheikh**, TENCON 2004, 21-24 November, 2004, Chiang Mai, Thailand
20. "The Effect of Users' grouping on the Linear Group-wise Successive Interference Cancellation Detectors", **Abdelouahab. Bentrchia, A. Zerguine and A. U. Sheikh**, International Conference on Communications, Circuits and Systems. June 27-29, 2004, Chengdu, China.
21. "A New linear Hybrid Multiuser Detector for CDMA Systems", **Abdelouahab. Bentrchia, A. U. Sheikh and A. Zerguine**, The 14th IEEE International Symposium On Personal, Indoor And Mobile Radio Communications. Barcelona, Spain, 5-8, September, 2004.
22. " High Resolution Electrochemical Impedance Spectroscopy", **Yamani, A., and Deriche, M.** 2nd IEEE GCC Conference, Bahrain Nov.23rd, 2004.
23. "Voltage Dip Assessment Using ESKOM Criterion", I.O. Habiballah, M. Kassass, H. Maghrabi, and K. Al-Soufi, 2004 Large Engineering Systems Conference on Power Engineering, Halifax, Canada, pp. 142 – 145, 28-31 July, 2004.
24. "Electrochemical Behavior of Vanadium Electrolyte for Vanadium Redox Battery-A New Technology for large Scale Energy Storage Systems", F. Rahman, I. O. Habiballah, and M. Skyllas-Kazacos, CIGRE General Session & Exhibition 2004, Paper No. D1-101, Paris, France, 28th August – 3rd September, 2004.
25. "Modeling and Simulation of Vectorial Wave Propagation in Nonlinear Integrated Photonic Devices", **H. Al-Mudhaffar, M. A. Alsunaidi and H. M. Masoudi**,

- submitted to PHOTONICS-2004, the 7th International conference on Opto-electronics, Fiber Optics and Photonics. Sponsors: IEEE, ISPE, ISP, 9 - 11 December 2004, Kochi, India.
26. "Transmission Expansion Planning Based on Tabu Search Algorithm", **Al-Hamouz Z. A. Mantawy, El-Amin I, and Al-Duwaish H., and Al-Farj A,** 16th European Conference on Artificial Intelligence, Valencia-Spain, August 22-27, 2004.
 27. "Optimal Design of Variable Structure Load Frequency Controller with Nonlinearities using Tabu search Algorithm", **Duwaish, Naji A. Al-Musabi, Zakariya M. Al-Hamouz, Samir Al-Baiyat, and Abdel-Aal Mantawy,** ICINCO-2004, August (25-28), Setúbal/Portugal.
 28. "Variable Structure Load Frequency Controller: Optimal Design and Chattering Reduction using Particle Swarm Optimization Algorithm", **Naji A. Al-Musabi, H. N. Al-Duwaish, Z. M. Al-Hamouz, Samir Al-Baiyat,** OPTIM'04, Brasov, Romania, May 20-22, 2004.
 29. "The Impact of Fixed Point Implementation on the Performance of Semi-Random LDPC Codes," **B.H. Dohan and M.A. Landolsi,** Proceedings of the 2nd IEEE GCC, Bahrain, Nov. 2004.
 30. "A Fast Multi-Threshold Hybrid Search Scheme for CDMA PN Code Acquisition," **M.K. Aregbesola and M.A. Landolsi,** Proceedings of the the 2nd IEEE GCC, Bahrain, Nov. 2004.
 31. "Feature Index For Document Image Analysis" **A. Zidouri,** The second IEEE-GCC Industrial Electrical & Electronics Conference. Manama, Bahrain, November 23-25, 2004
 32. "ORAN: A basis for an Arabic Character Recognition System" **A. Zidouri,** 2004 International Symposium on Intelligent Multimedia, Video & Speech Processing The Hong Kong Polytechnic University Hong Kong October 20-22, 2004.
 33. "Signal Enhancement In Nuclear Magnetic Resonance Spectrums" **Osama Ahmed,** 2nd IEEE-GCC Conference, Manama, Bahrain, pp. 129-134, November 2004.
 34. "Exact bit error rate of 16-QAM modulation over a nonlinear satellite channel" " **Osama Ahmed,** 1st IFIP International Conference on Wireless and Optical Communications Networks WOCN' Muscat, Oman, pp: 244-247, June 2004.
 35. "A particle-swarm-based Reactive Power Optimization Algorithm", **A. H. Mantawy and M. S. Al-Ghamdi,** paper presented at the 2nd GCC, Bahrain, November 23-25, 2004.
 36. "On the Positioning Capability of UWB Systems", **Muqaibel, A. Safaai-Jazi, and S. Riad,** 2nd IEEE-GCC Conference, Bahrain, Nov. 23 – 25, 2004.

37. "A Robust Damping Controller Design for a Unified Power Flow Controller", **A.H.M.A.Rahim and S.A.Al-Baiyat**, Proc. 39th Universities Power Engineering Conference, Bristol, UK, September, 2004.
38. "Wideband Audio Compression Using Wrapped Linear Prediction And The Discrete Wavelet Transform", **M. Deriche, D. Ning**, Proceedings of IEEE ISCAS Conference, Canada, 2004.
39. ["Soft Constraint Satisfaction Multimodulus Blind Equalization Algorithms"](#), **S. Abrar, A. Zerguine, M. Deriche**, Proceedings of IEEE ICASSP Conference, Canada, 2004.
40. "A Low Complexity Iris Identification Algorithm Using Fourier Descriptors", **M. Deriche**, in proceedings of the International Conference on Imaging Science, Systems, and Technology (CISST'04), USA, 2004.
41. "An Eigeneye Decomposition Algorithm for Person Identification", **M. Deriche, M. Mudassir**, Proc. of 2nd IEEE GCC Conference, Bahrain, 2004.
42. "A Pose Invariant Face Recognition Algorithm", **M. Deriche, M. Aleemuddin**, Proc. of 2nd IEEE GCC Conference, Bahrain, 2004.
43. "A Hybrid PCA_ANN Approach to Face Recognition", **M. Deriche, N. Imran**, Proc. of 2nd IEEE GCC Conference, Bahrain, 2004.
44. "Video Based Isolated Arabic Sign Language Recognition using HMM and the EM Algorithm", **M. Sarfraz, M. Mohandes, S. Muzaffar** The Second IEEE GCC Conference & Exhibition: Advancing Technology in the GCC "Challenges and Solutions", Nov. 23-25, 2004, Bahrain.
45. "Automation of the Arabic Sign Language Recognition", **Mohandes, Buraiky, Halawani, Al-Baiyat**, Third Saudi Technical Conference and Exhibition, STCEX, 11-15 December, 2004, Riyadh, Saudi Arabia
46. "A Smart Card Based Driving License System", **M.W. Raad, M. Mohandes**, The Second IEEE GCC Conference & Exhibition: Advancing Technology in the GCC "Challenges and Solutions", Nov. 23-25, 2004, Bahrain.

Mechanical Engineering Department

1.	"Flow and Heat Transfer over a series of In-Line Cylinders Confined in a Channel", Haitham M.S. Bahaidarah, N.K. Anand, and H.C. Chen , <u>41st Annual Technical Meeting of the Society of Engineering Sciences, Lincoln, NE</u> October10-13, 2004.
2.	" Laser short-pulse heating of metallic surface: consideration of Seebeck effect", Yilbas B.S. , CMES ¹ -2004, <u>Proceedings of the First Cappadocia International Mechanical Engineering Symposium</u> , 14-16 July 2004, Cappadocia, Turkey.
3.	"Laser drilling end product quality assessment", Yilbas B.S. , <u>Proceedings of the 3rd International Conference on Advanced Manufacturing Technology, ICAMT 2004</u> , Vol. 1, pp. 74-79, 11-13 May Kuala Lumpur, Malaysia, 2004.

Aerospace Engineering

1. "Cross-Flow Velocity Field in the Near Wake of a Pickup Truck", **Bernal L.P., Al-Garni, A.M. and Khalighi, B.** ASME Heat Transfer/Fluids Engineering Summer Conference, July 11-15, 2004, ASME Paper HT-FED 2004-56659.
2. "Reliability Analysis of Aircraft Air Conditioning Packs", **A.Z. Al-Garni, M. Tozan, A. Kassem and S. Farooq**, 3rd Aircraft Engineering Symposium, Jeddah, Saudi Arabia, Nov. 2004 (1425 H).
3. "Optimizing Neural Networks for Modeling Leak Monitoring in Pipelines", **A. Kassem and Ihab G. Adam**, ASME Pressure Vessels and Piping Conference, San Diego, California, USA, July 2004.

College of Sciences

Chemistry

- 1 "Solubility Product of PbCl₂ from Electrochemical Measurements", **S. Hwang and G. A. Oweimreen**, Abstracts of the ICCT–2004–18th IUPAC – International Conference on Chemical Thermodynamics, August 17-21, 2004, Beijing, China.
2. "An Experimental Verification of a Second-Order Perturbation Effect", **J. S. Hwang and G. A. Oweimreen**, Abstracts of the 18th International Conference on Chemical Education. 'Chemistry Education for the Modern World', August 3-8, 2004, Istanbul, Turkey.
3. "Thermodynamics of the Solubility of PbCl₂ in water from Electrochemical Measurements", **J. S. Hwang and G. A. Oweimreen** , Abstracts of the 18th

International Conference on Chemical Education. ‘Chemistry Education for the Modern World’, August 3-8, **2004**, Istanbul, Turkey.

4. " A new class of Inhibitors of mild steel in acidic medium", **Tariq Saeed, Saleem-Ur-Rahman and Sk. Asrof Ali**, 6th International conference and Exhibition on Chemistry in Industry Mohammed The Cyclic Nitrones : (CHEMINDIX 2004), Sept. 27-29, 2004, Gulf International Convention Center , Gulf Hotel, Manama, Bahrain.
5. " Synthesis and Corrosion Inhibition study of Isoxazolidines", Mohammed Tariq Saeed, **H. A. Al-Muallem and Sk. Asrof Ali**, International Conference on Chemistry and Industry, King Saud University, December 11-14, 2004, Riyadh KSA,
6. "Synthesis of a New *N,N*-Diallylamino Acid-Sulfur Dioxide Copolymer", **Hasan A. Al-Muallem, Mohamed I. M. Wazeer, and Sk. Asrof Ali** Proceedings of the 6th International Conference & Exhibition on Chemistry in Industry, CHEMINDIX 2004, September 27-29, 2004, Bahrain.

Earth Sciences Department

1. Clay cementation and reservoir quality: Case studies from Saudi Arabia and Bangladesh gasfields", **Imam, B., Hussain, M. and Al-Ramadhan, K.** XI Geological Congress of Bangladesh Geol. Soc., 2004, Abstract with Programs, v. 16, p. 15.
2. "Neogene Hofuf Formation hosted Jabal Al Qarah caves: Structural and depositional constraints, eastern Saudi Arabia", **Hussain, M., Khandaker, N.I. and Al-Khalifa, F.** *Invited Talk: Annual Conference, Geol. Soc. Amer.*, 2004, Abstracts with Programs, v. 36, p. 235.

Mathematics Department

1. “Non-existence of global solutions for the wave equation with a dissipation of cubic convolution type in R^n ”, **N.E. Tatar**, International Conference on Nonlinear Operators, Differential Equations and Applications, Cluj-Napoca, Romania, (Aug 24-27, 2004).
2. “Desingularizing with the help of an inequality”, **N.E. Tatar**, International Conference on Mathematical Inequalities and their Applications, Victoria University, Melbourne, Australia, (Dec. 6-8, 2004).
3. “Global existence and asymptotic behavior for a nonlinear parabolic equation”, **N.E. Tatar**, Second International Conference on Mathematical Sciences, United Arab Emirates University, Al-Ain, United Arab Emirates, (Dec. 12-14, 2004).

4. "On the Predictors of Success in Computer Aided Learning of Precalculus Algebra", **B. Yushau**, Winer Research School, Port Alfred, South Africa, (June 20-25, 2004).
5. "(L, ϵ)-Approximation of a Function: An alternate approach to define the limit", **B. Yushau**, International Congress of Mathematical Education (ICME-10)", Nordic Countries and ICME, Copenhagen, Denmark, (Jul 4-11, 2004).
6. "The Effects of Blended E-Learning on Computer and Mathematics Attitudes on the Pre-calculus Algebra Course", **B. Yushau**, Second International Conference of Mathematics, Al-Ain, UAE, (12-13 December, 2004).
7. "Factors Contributing to Mathematics Achievement: the case of Computer aided Learning Environment", **Yushau B., Mji A. Wessels D.C.J. & Bokhari, M.A.**, Second International Conference of Mathematics, Al-Ain, UAE, (12-14, December, 2004).
8. "Study of Acoustic Waves in Oceans ", **F. Zaman**, Second Saudi Conference, KAU, Jeddah, S.A., (Mar 15-17, 2004).
9. "Coinduction Functions for Caegories of Comodules for Corings", **J.Y. Abuihlail**, Ferrara Algebra Workshop: Conference of Hopf Algebras & Quantum Groups-Rings and Module Theory", A. Ardizzoni, C. Menini & F., Stumbo, Ferrara, Italy, (Jun 16-19, 2004).
10. "Spectral Theory Network Conference" **B. Chanane**, VI, EPSRC, Cardiff, UK, (Jul 23-25, 2004).
11. "m-function ad related topics, AMS", **B. Chanane**, EPSRC, Cardiff", United Kingdom, (Jul 19-21, 2004).
12. "Fourth European Congress of Mathematics", **Q.H. Ansari**, Royal Institute of Technology in Stockholm, Stockholm, Sweden, (Jun 27-Jul 2, 2004)
13. "Second Saudi Science Conference", **A.H. Bokhari**, Jeddah, S.A., (Mar 15-17, 2004).
14. "Organizer of the International Conference: 2004-Dynamical Systems and Applications", **H. Akca**, Antalya, Turkey, (Jul. 5-10, 2004).
15. "International Conference on Differential Equations and Applications in Mathematical Biology", **H. Akca**, Malaspina University-College Nanaimo, British Columbia, Nanaimo, Canada, Jul 18-23, 2004.
16. "International Conference of Computational Methods in Science & Engineering European society of Mathematics", **M. Aslam Chaudhry**, Athens, Greece, (Nov. 19-23, 2004).

17. "Boundary Value Problems with Impulsive Effects", **A. Boucherif**, The First Arab Conference on Mathematics, Mathematics Department-Faculty of Basic Sciences, Amman, Jordan, (Oct. 6-8, 2004).
18. "Second Order Periodic Boundary Value Problems, **A. Boucherif**, Conf. Dynamic Systems and Applications, Antalya, Turkey, (Jul 5-10, 2004).
19. **Dr. A. Boucherif**, "Impulsive Multivalued Boundary Value Problems", Second International Conference on Mathematical Sciences, Al-Ain, AE, 12-14 December 2004.
20. "Techniques of a Priori Choice of Regularization Parameters in Tikhonov Regularization" **M. Iqbal**, Saudi Mathematical Science Conference, Riyadh, (7-8 April 2004).

Physics

1. "Spectroscopic studies of oxidation of coke in glow discharges in He-O₂, Ar-O₂ and N₂-O₂ gas mixtures", **M. A. Khan and A. A. Al-Jalal**, The e-Proceedings of the 31st European Conference on Plasma Physics, Vol. 28 G, P-1.20048 (2004).
2. "Surface investigation on thermal stability of tungstophosphoric acid using synchrotron radiation", **M. Faiz, N. Tabet**, N.M. Hamdan, Z. Hussain, and Pasl A. Jalil, 3rd SESAME Users' Meeting, Antalya, Turkey (2004)
3. "Synthesis and XPS characterization of pure and N-implanted nanocrystalline ZnO", **N. Tabet and M. Faiz**, 3rd SESAME Users' Meeting, Antalya, Turkey (2004)
4. "Comparative study of laser photo-catalytic conversion of methane into methanol over different catalysts" **M. A. Gondal**, A. Hameed, **Z. H. Yamani**, and A. Arfaj, , International Conference on Chemistry and Industry, Riyadh (2004).
5. "Photocatalytic performance of NiO catalyst in oxidative coupling of methane into methanol under UV laser irradiation" **M. A. Gondal**, A. Hameed, A. Arfaj, and **Z. H. Yamani** (2004), Symposium on catalysts applications in GC countries Sharja-UAE (13-15 December 2004).
6. "Development of laser based novel systems for industrial pollution monitoring", **M.A. Gondal**, A. Dastgeer and I.A. Bakhtiari, Fourth specialty international conference on Environmental progress in the petroleum & Petrochemical industries, Manama, Bahrain (23-25th February, 2004).
7. "Measurement of turbulent flows with doppler lidar" **M. A. Gondal**, and **U.A. Klein**, International Mechanical Engineering Conference-2004, Kuwait (December, 2004).

8. “LIDAR Measurements of Tropospheric Aerosols and Boundary Layers”, **M. A. Gondal**, L. Lelli, K. Stalmaszczyk, S. Frey and L. Woeste, 35th COSPAR Scientific Assembly, On Space Research and Remote Sensing, Paris, 18-25th July 2004.
9. “Activity of WO_3 , NiO and Fe_2O_3 Catalysts for Hydrogen Production under UV Laser Irradiation”, **M. A. Gondal**, A. Hameed, **Z. H. Yamani**, and A. Arfaj, Chemistry in industry (CHEMINDIX 2004), Manama, Bahrain, September 27-29, 2004.
10. “Correlation of Radon Exhalation from Granite used in Saudi Arabia with Radium Content” **M. I. Al-Jarallah**, **Fazal-ur-Rehman**, **M. S. Musazay**, **A. Aksoy**, 22nd International Conference on Nuclear Tracks in Solids, Barcelona, Spain, August 23-27,2004
11. “Indoor Radon Measurements in Women College Dammam Saudi Arabia” Mona Al-Qahtani , **M. I. Al-Jarallah**, **Fazal-ur-Rehman**, 22nd International Conference on Nuclear Tracks in Solids, Barcelona,Spain,August, 23-27,2004
12. “Radon Concentration Measurements in the Desert Caves of Saudi Arabia” Hanan Al-Mustafa, **M. I. Al-Jarallah**, **Fazal-ur-Rehman**, 22nd International Conference on Nuclear Tracks in Solids, Barcelona,Spain,August, 23-27,2004
13. “Assessment of Fast and Thermal Neutron Equivalent Doses around the Neutron Source Storage Area using CR-39 Nuclear Track Detectors” **Fazal-ur-Rehman**, **Al-Jarallah,M.I.**,Abu-Jarad,F.,Qureshi,M. 22nd International Conference on Nuclear Tracks in Solids, Barcelona,Spain,August, 23-27,2004

College of Computer Science & Engineering

Information & Computer Science

1. “Utilizing Staging tables in Data Integration to load data into Materialized Views”, **Ahmed, E., Revett, K.**, Proceedings of International Symposium on Computational and Information Sciences, Shanghai, China, 16 – 18 December 2004, Lecture Notes in Computer Science Vol 3314 pp 685 – 691.
2. “A Ubiquitous Approach for Next Generation Information Retrieval System”, **El-Basuny, T. H.**, Proceedings of the IEEE International Conference on Information and Computer Science (ICICS 2004), Dhahran, Saudi Arabia, 28-30 November 2004.
3. “Multi-agent based Electronic Commerce System”, **El-Basuny, T. H.**, Proceedings of the 1st IEEE International Computer Engineering Conference New Technologies for the Information Society, Cairo, Egypt, 27-30 December 2004.
4. “Input-Termination of Logic Programs”, **M.R.K. Krishna Rao**, Proceedings of International Symposium on Logic-based Program Synthesis and Transformation, Verona, Italy, August 26 - 28, 2004.

5. “Inductive Inference of Term Rewriting Systems from Positive Data”, **M.R.K. Krishna Rao**, Proceedings of Algorithmic Learning Theory, ALT'2004, Lecture Notes in Artificial Intelligence, Vol. 3244, pp. 69-82.
6. “.Learnability of Simply-Moded Logic Programs from Entailment”, **M.R.K. Krishna Rao**, Proceedings of 9th Asian Computing Science Conference, ASIAN 2004, Lecture Notes in Computer Science, Vol. 3321, pp. 128-141.
7. “Learning Rewrite Systems from Examples”, **M.R.K. Krishna Rao**, Proceedings of International conference on Knowledge Based Computer Systems, KBCS'2004, Hyderabad, India, December 19-22, 2004.
8. “A Web Based System for Capturing Outlines of 2D Objects”, **Sarfraz, M., Asim, M. R., and Masood, A.** The Proceedings of The International Conference on Information and Computer Science (ICICS'2004), King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, pp 575 – 586.
9. “Piecewise Polygonal Approximation of Digital Curves”, **Sarfraz, M., Asim, M. R., and Masood, A.** The Proceedings of IEEE International Conference on Information Visualisation (IV'2004)-UK, IEEE Computer Society Press, USA, 991- 996.
10. “Capturing Outlines using Cubic Bezier Curves”, **Sarfraz, M., Asim, M. S., and Masood, A.** The Proceedings of The International Conference on Information & Communication Technologies: from Theory to Applications - ICTTA'2004, April 19 - 23, 2004, Omayyad Palace, Damascus, Syria, IEEE Computer Society Press, USA, ISBN: 0-7803-8482-2.

Computer Engineering Department

1. “A Distributed Framework for Relaying Stereo Vision for Telerobotics”, **Mayez Al-Mouhamed, Onur Toker, Asif Iqbal, and M. Nazeeruddin**, IEEE Inter. Conference on Pervasive Services, Beirut, Lebanon, July 17-20, 2004, pp. 221-225.
2. “A Modular Distributed Telerobotic Client-Server System”, **M. Al-Mouhamed, M. Nazeeruddin, and A. Iqbal**, Inter. Conference on Information and Computer Science (ICICS'04), KFUPM, Dhahran, KSA, Nov, 28-30, 2004, pp. 1284-1287
3. “A Smart Card Based Driving Licence System”, **M. W. Raad and M. Mohandes**, Proceedings of 2nd IEEE GCC, Manama, Bahrain, November 23-25, 2004.
4. “Framework for Extensions to XML-based Network Management”, **Mohammed H. Sqalli and Shaik Sirajuddin**, The International Conference on Information and Computer Science - ICICS 2004, November 29 - December 1, 2004, Dhahran, Saudi Arabia.

5. "Online Scheduling Algorithms for CDMA Data Networks," **M.A. Razzaque and A. S. H. Mahmoud**, The International Conference on Information and Computer Science - ICICS 2004, November 29 - December 1, 2004, Dhahran, Saudi Arabia.
6. "A Class-Based Clustering Static Compaction Technique for Combinational Circuits," **Aiman El-Maleh and Yahya Osais**, 16th IEEE International Conf. on Microelectronics, December 2004, pp. 522-525,
7. "On Test Vector Reordering for Combinational Circuits," **Aiman El-Maleh and Yahya Osais**, 16th IEEE International Conf. on Microelectronics, December 2004, pp. 772-775.
8. "Scalable Cache Memory Design for Large-Scale SMT Architectures", **M. Mudawar**, Proceedings of the 3rd Workshop on Memory Performance Issues held in Conjunction with 31st IEEE/ACM International Symposium on Computer Architecture, June 20-23, 2004, Munich, Germany.
9. "One-Level Cache Memory Design for Scalable SMT Architectures", **M. Mudawar and J. Wani**, Proceedings of the 17th ICSC International Conference on Parallel and Distributed Computing Systems, September 15-17, 2004, San Francisco, USA.
10. "Framework for Extension to XML-Based Network Management", **Mohammed H. Sqalli and Shaik Sirajuddin**, The International Conference on Information and Computer Science 2004, November 29-December 1, 2004, Dhahran, Saudi Arabia.
11. "On Test Vector Reordering for Combinational Circuits", **Aimen El-Maleh and Yahya Osais**, 16th IEEE International Conference on Microelectronics, pp. 772-775, December 2004.
12. "A Class-Based Clustering Static Compaction Technique for Combinational Circuits", **Aimen El-Maleh and Yahya Osais**, 16th IEEE International Conference on Microelectronics, pp. 772-775, December 2004.
13. "Online Scheduling Algorithms for CDMA Data Networks, **M.A. Razzaque A.S.H Mahmoud**, Online Scheduling Algorithms for CDMA Data Networks, ICICS 2004, November 29-December 1, 2004, KFUPM, Dhahran, Saudi Arabia.

Systems Engineering Department

1. "Inventory Model With Stock-Level Dependent Demand Rate and Variable Holding Cost", **H.K. Alfares**, 13th International Symposium on Inventories, Budapest, Hungary, August 22-27, 2004
2. "Compressed Workweek Scheduling with Consecutivity, Frequency and Stretch Constraints" **H.K. Alfares**, The 5th Asia-Pacific Industrial Engineering and Management Systems Conference, Gold Coast, Australia, December 12-15, 2004
3. "Optimum Tour Scheduling of IT Desk Help Agents", 2nd International Industrial

- Engineering Conference (IIEC) 2004, **H.K. Alfares**, Riyadh, Saudi Arabia, December 19-21, 2004
4. "Strong Stabilization via a Stable Projection", **A.W. Al-Saif**, 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia, December 19-21, 2004
 5. "A New Layout Design for the Jamarat Area", **M. Al-Haboubi**, 5th Scientific Symposium For Hajj Research, Makkah, Saudi Arabia, 2004
 6. "Model-Based Detection and Isolation of Leaks in Pipelines with Experimental Verification" **Y.A. Khulief, H.E. Emara-Shabaik**, International Mechanical Engineering Conference (IMEC) 2004, Kuwait, December 5-8, 2004
 7. "Parameters Estimation and Determination of Confidence Intervals for the Inter-City Distances of Saudi Arabia" **S. Arifusalam, M. Ndiaye**, EWGLA XV Conference, Saarbrücken, Germany, September 5 - 8, 2004
 8. "Economic Production Quantity Models with Variable Production Rate Due to Speed Losses", **M. Ben-Daya, S.N. Khursheed, M. Hariga**, 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia, December 19-21, 2004
 9. "Geometric Policy with Transportation Costs for Joint Economic Lot Sizing Problem", **M. Darwish, K. Ertogral, M. Ben-Daya**, 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia, December 19-21, 2004
 10. "Application of the Non-Subtractively Dithered Quantization Scheme to the Exact Recovery of the FFT of Noisy Signals: The Two-Channel Case", **L. Cheded, S. Akhtar**, 12th European Signal Processing Conference (EUSIPCO 2004), Vienna, Austria, September 6-10, 2004
 11. "Design of an Internet-Based SCADA System and its Application to the Process Industry", **R. Fan, O Toker, L. Cheded**, International Conference on Information and Computer Science (ICICS 2004), KFUPM, Dhahran, Saudi Arabia, November 28-30, 2004
 12. "Random Quantization: A New Analysis with Applications", **L. Cheded**, (Accepted for presentation) 6th International Conference on Mathematics in Signal Processing, UK, December 14-16, 2004
 13. "An XML-Based Services Approach to SCADA Systems Design", **L. Cheded**, 2nd International IEEE-GCC Conference 2004, Manama, Bahrain, November 23-25, 2004

14. "Industrial Case Study: On SAFCO3 Gas Turbine Control System Sensitivity to NG Variations", **M. Al-Ghumgham, A. Hermoso, M. Claudio, M. Al-Abaidi, S. Al-Amer**, SABIC Technical Meeting, October 2004
15. "Optimization Techniques in Chemical Processes", **K. Ertogral, A.A.S. Azhar, H.N. Al-Duwaish**, 2nd International IEEE-GCC Conference 2004, Manama, Bahrain, November 23-25, 2004
16. "Multi-Item Single Source Dynamic Ordering Problem with Transportation Cost", **K. Ertogral**, 20th European Conference on Operational Research, Rhodes, Greece, July 2004
17. "Cost-Time Trade Off for Projects with Nonlinear Cost Functions", **S.O. Duffuaa**, The 4th International Industrial Engineering Conference, Teharan, Iran, July 2004
18. "A Mathematical Model for the Joint Determination of Optimal Process and Sampling Plan Parameters", **M.A. Darwish, S.O. Duffuaa**, 2nd International Conference in Industrial Engineering (IIEC) 2004, Riyadh, Saudi Arabia, December 19-21, 2004
19. "Critical Evaluation of Simulation Studies in Inventory System", 2nd International Industrial Engineering Conference (IIEC) 2004, **M.E. Seliaman, A.A. Andijani**, Riyadh, Saudi Arabia, December 19-21, 2004
20. "Single Machine Scheduling with a Common Due Window and Random Machine Breakdowns", **M.E. Seliaman, U.M. Al-Turki**, 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia, December 19-21, 2004

College of Industrial Management

Department of Management & Marketing

1. "An Investigation of the Relationship Between Quality of Work-life (QWL) and Organizational Commitment (OC): A Case of Professional Engineers," **Mat Zin, Razali**, 1st International Conference on Cross-Cultural Leadership and Management Studies, Korea University Business School, Seoul, Korea, 10-12 June, 2004.
2. "Entrepreneurship and Multinational Subsidiaries in Malaysia: An Exploratory Study" **Sohail, Sadiq. M** and Selvamalar A, Academy of World Business Marketing and Management Development (AWBMAMD) Conference at the Gold Coast International Hotel in Queensland, Australia. July 13-16, 2004
3. "Exporting to Saudi Arabia: Opportunities and Challenges", **Sohail, Sadiq. M and Burney, Asim**, World Review of Science, Technology and Sustainable Development Conference, Edinburgh, U.K , November 8-10, 2004

College of Environmental Design

Architectural Engineering Department

1. Characteristics and Applications of Local Building Thermal Insulating Materials ". **Al-Homoud, M. S.**, "Symposium on Thermal Insulation, April 19-21, **2004**, Riyadh, KSA.
2. "Increasing Student Motivation", Said, S. A. and **M. S. Al-Homoud**, 2004, Proceedings of the Discussion Form on: Faculty and Student Motivation, May 23, 2004, DAD, KFUPM, Dhahran, Saudi Arabia.
3. "The Role of Self-Assessment in the Quality Assurance of Academic Programs" **Al-Homoud, M. S.**, Workshop on: Prince Abdullah Initiative on Higher Education held on January 30-February 1, **2005**, KAAU, Jeddah, KSA.

City & Regional Planning Department

1. "Manpower Outsourcing A Double-Edged Sword", **Aldosary, Adel S.**, Presented at Kuwait 1st Annual Business Process Outsourcing Conference & Exhibition, 24-25 May 2004, Kuwait.
2. "GIS Applications in Optimum Site Selection for Tourist Sites: Texas as a Case Study", **Al-Ramadan, Baqer and Yusuf Aina.** Presented at the Third International GIS Conference Proceedings (GIS - 2004), Manama, Bahrain, September 27 - 29, 2004.

10. BOOKS PUBLISHED AND CONTRIBUTIONS

College of Engineering

Electrical Engineering

1. Tutorial on Mathematics to MATLAB, March 2003
2. Modeling and Simulation in SIMULINK for Engineering and Scientists.
Author: Mr. Mohammad Nuruzzaman, Lecturer, EE Department

College of Sciences

Chemistry

1. "Synthetic Polymers" in Handbook of Industrial Chemistry" **Hasan A. Al-Muallem, Mohammad Farhat Ali, Bassam M. El Ali and James G. Speight**, (Editor), McGraw-Hill, New York, N.Y., pp. 511-619, 2005

College of Computer Science & Engineering

Information & Computer Science

1. "The Proceedings of The International Conference on Computer Graphics, Imaging and Visualization-CGIV'2004-Malaysia", **Ebad Banissi, Abd. Rahni Mt. Piah and Muhammad Sarfraz**, IEEE Computer Society, USA, (2004), ISBN: 0-7695-2178-9.
2. "The Proceedings of The International Conference on Computer Graphics, Imaging and Visualization-CGIV'2004-Malaysia", **Ebad Banissi, Abd. Rahni Mt. Piah and Muhammad Sarfraz**, University Sains Malaysia Press, Penang, Malaysia, (2004), ISBN: 983-861-289-8.

Computer Engineering Department

1. Book Review of Project Scheduling with Time Windows and Scarce Resources", **H. Alfares**, International Journal of Production Research, Vol. 42, No. 20, October 15, 2004, p. 4427.

College of Industrial Management

Department of Management & Marketing

1. "Carrefour in Malaysia's Retailing Industry". **Sohail, Sadiq. M** (2004). The European Case Clearing House, Cranefield University, England (Case number 52004-069-1). Accompanied by teaching note available to instructors (No. 52004-069-8)

College of Environmental Design**City & Regional Planning Department**

1. ‘The National Encyclopedia of Saudi Arabia, The Economy and Natural Resources: Eastern Province’ **Aldosary, Adel S.**, Volume III, 219 pages, Sole Author, Published by King Abdulaziz National Library, Riyadh, 2004.

11. TECHNICAL REPORTS

College of Engineering

Civil Engineering Department

1. “Tire Failure – Reasons and Consequenses,” **Ratrout, N.T., Al-Abdul Wahhab, H.I. and Al-Ofi, K.**, 6th Interim Report, KACST, 1425 H.
2. “Risk and Reliability Analysis of Water Distribution System,” **Al-Zahrani, M. and Syed, J. Laiq**, Revised Final Report, Project No. SABIC 2003-01, October 2004.
3. “Industrial Pollutant Removal Using Locally Produced Activated Carbon Amended Sand,” **Al-Zahrani, M., Essa, M. and Al-Attas, O.**, Final Report, Project No. SABIC 2003-09, October 2004.
4. “Hydraulic Analysis of Al-Khobar Water Distribution System,” **Al-Zahrani, M. and Al-Ghamdi, A.**, Second Progress Report, KACST Research No. (APR-22-003), December 2004.
5. “Environmental Pollution Due to Underground Storage Tanks,” **Al-Suwaiyan, M.S. et al.**, Progress Report No. 2, KACST Project AT-22-91, October 2004.
6. “Graduated Driver Licensing Application in the Kingdom of Saudi Arabia for Young Drivers and Chauffeurs,” **Ratrout, N. A.**, report prepared under the British Council Post-Doctoral Research Program during Summer 2004 at Nottingham University, UK, submitted to the British Council, Dammam, October 2004.
7. “Study on Design of Steel Block Voided Slab System,” **Azad, A. K., R. I.** Project CER 2302 Final Report, R.I., November 2004.
8. “Pedestrian Engineering Countermeasures and their Effectiveness in the United Kingdom,” **S. Al-Senan**, A post-doctoral Research Executed at University of Napier, Edinburgh, United Kingdom, sponsored by the British Council, August 2004.
9. “Prediction of Residual Strength of Corrosion-Damaged Reinforced Concrete Beams,” **Abul Kalam Azad and Shamsad Ahmad**, Final Report, SABIC (2002/02), October 2004.
10. “A Study to Improve SABIC Polymers for the Performance Modification of Saudi-Asphalt Binders,” **Al-Abdul Wahhab, H. et al.**, 3rd Progress Report, Saudi Basic Industries Corporation (SABIC), September 2004.

11. "A Study to Improve SABIC Polymers for the Performance Modification of Saudi-Asphalt Binders," **Al-Abdul Wahhab, H. et al.**, Final Report, Saudi Basic Industries Corporation (SABIC), October 2004.
12. "Analysis and Design of Buried Pipelines," **Abduljauwad, S.N., Al-Ghamedy, H.N., Balah, M., Siddiqui, J.A., and Al-Muhtaseb, H.**, First Progress Report prepared for Saudi Aramco, June (2004).

College of Sciences

Earth Sciences Department

1. "Investigation of the Influence of Municipal and Agricultural Projects on Groundwater Quality, and Vulnerability Assessment of Wadi Al-Arj Alluvium Aquifer, Taif, Saudi Arabia". **Al-Shaibani, A.M., Hariri, M.M. and Makkawi M.H.**, SABIC project # SAB-2001/7 Final Report, October 2004.
2. "Trace element geochemistry and heavy mineral assemblage of the Cambro-Ordovician Saq sandstone of the Tabuq Basin and its possible correlation with the Wajid Sandstone", **Hussain, M. and Osman, A.**, KACST LGP 6-14 Final Rept. December, 2004.

Mathematics

1. "Some Inequalities in Descriptive Statistics", **A. H. Joarder and A. Laradji**, Technical Report # 320, (June 2004).
2. "Existence of Solutions of Periodic Boundary Value Problems", **Abdelkader Boucherif and Nawal Al-Malki**, Technical Report # 321, (June 2004).
3. "Mathematics: Conceptions, Learning and Teaching", **B. Yushau, M.A. Bokhari, A. Mji & D.C.J. Wessels**, Technical Report # 322, ((2004).

Physics

1. "Investigation of the Growth and the Electrical Properties of Thin Oxide Layers Obtained by Dry Oxidation of Zinc Substrates: Final report", **N. Tabet and M. Faiz**, October 2004.
2. "Investigation of the Hole Concentration in the Overdoped $(\text{Ti,Pb})_1\text{Ba}_{0.4}\text{Sr}_{1.6}\text{Ca}_3\text{Cu}_4\text{O}_x$ Superconductors: Final report", **Kh.A. Ziq and M. Faiz**. September 2004.

3. “Investigation of the growth and the electrical properties of thin oxide layers obtained by dry oxidation of zinc substrates”, KFUPM, Fast track Project **N. Tabet, M. Faiz**, June 2004.
4. “X-ray Photoelectron Spectroscopy (XPS) and Magnetization Studies of Strontium-Borate Vanadate Glasses” KFUPM, Fast track Project FT-2002/05, **G. Khattak, N. Tabet**.

College of Computer Science and Engineering

Computer Engineering Department

1. Design, Analysis and FPGA Prototyping of High-Performance Arithmetic for Cryptographic Applications: Literature Review – Part 1: Cryptographic Algorithms – CCSE Technical Report KFUPM-CCSE-2004-001/COE by **Dr. Mostafa Abd El-Barr, Alaaeldin Amin and Turki F. Al-Somani**, KFUPM.
2. Design, Analysis and FPGA Prototyping of High-Performance Arithmetic for Cryptographic Applications: Literature Review – Part 2: Elliptic Curve Cryptosystems & FPGA– CCSE Technical Report KFUPM-CCSE-2004-001/COE by **Dr. Mostafa Abd El-Barr, Alaaeldin Amin and Turki F. Al-Somani**, KFUPM.
3. Computational Methods in Bioinformatics: Introduction, Review, and Challenges: CCSE Technical Report-KFUPM-CCSE-2004-003/COE by **Dr. Mostafa El-Shafei**, Systems Engineering, KFUPM.

12. PATENTS AND COPYRIGHTS

- 1.** Award for Scientific Patent earned in the name of “Moveable Surfaces Plane” **Dr. Ahmed Z. Al-Garni**, PATENT # US 6,622,973 B2, 10 May 2004.

13. LECTURES AND SEMINARS GIVEN BY UNIVERSITY FACULTY

College of Engineering

Civil Engineering

1. Speaker : Dr. Al-Ghamedy, H.N.
Topic : Faculty Evaluation System, Open Forum on Faculty Evaluation, KFUPM
Date : September 26, 2004.
2. Speaker : Dr. Vohra, M. S.
Topic : Environmental Applications of TiO₂ Mediated Photocatalysis, KFUPM,
Date : December, 2004.

Electrical Engineering

1. Speaker : Dr. Salman Adel, Zummo
Topic : Diversity and Channel Estimation in Wireless Systems
Date : August 2004.
2. Speaker : Dr. Salman Adel, Zummo
Topic : Coded Cooperation in Wireless Networks.
Date : November 2004.
3. Speaker : Dr. Abdelmalek Zidouri
Topic : Basic WebCT Course Design: A Colleague's Experience.
Date : September 28, 2004.
4. Speaker : Dr. Zeini Al-Saati

- Topic : Algorithms for interconversion of numbers and calendars and implementation in Assembly Language.
- Date : October 05, 2004.
- 5 Speaker : Dr. Abdurrahim A. Hamed.
- Topic : A robust damping controller for a unified power flow controller.
- Date : October 12, 2004.
6. Speaker : Dr. Mahmoud Dawoud.
- Topic : Interactivity in Online Courses.
- Date : October 19, 2004.
7. Speaker : Dr. M. Abido.
- Topic : Power Systems Stability Enhancement Using Unified Power Flow Controllers.
- Date : November 02, 2004.
8. Speaker : Dr. H. Al-Zaher.
- Topic : CMOS BANDPASS Filters for Low-IF Bluetooth Receiver.
- Date : November 30, 2004.

9. Speaker : Dr. A. Muqaibel.
- Topic : On the Positioning Capability of UWB Systems.
- Date : December 14, 2004.
-
10. Speaker : Mr. Lahouari Ghouti.
- Topic : Multimedia Security & Protection: The Non-
 Cryptographic Way
- Date : December 21, 2004.
-
11. Speaker : Dr. H. Ghafouri Shiraz
- Topic : Reduction of Coupling Loss between Laser Diodes and
 Single-mode Fibres Using Conically Shaped Microlenses.
- Date : January 02, 2005.

REPORT CONFERENCES ORGANIZED BY KFUPM

The EE Dept was one of the main organizers of the 2nd IEEE GCC Conference and Exhibition held during the period of November 23-25, 2004 at the Gulf Convention Center in Bahrain. The event was a major technical conference attended by more than 600 participants from 22 countries. The conference was highlighted by a number of prominent speakers from around the world. In addition to the regular program, a full day tutorial was conducted on major communications topics. The conference was sponsored by the IEEE GCC Sections. The call for papers received overwhelming response from around the world with more than 220 papers received and 135 papers accepted after a 2 round review. The Faculty from the EE Dept. was major players at the conference at all levels including being in charge of the technical program, submitting numerous papers, and heavily involved in the organization side.

Mechanical Engineering

1. Speaker : Dr. Maher Maqbool Shariff, Saudi Aramco R&D Center
- Topic : Numerical Analysis of Unusual Caustic Corrosion of
 Type 316 Stainless Steel Transfer Line
- Date : Sept. 21, 2004

2. Speaker : Dr. Antar MA.
 Topic : Workshop on e-learning in Higher Education
 Date : October 02, 2004

3. Speaker : Dr. Nicolas M. Herrera, R.I.
 Topic : Laboratory and Safety Issues
 Date : October 05, 2004

4. Speaker : Saad bin Mansoor
 Topic : Laser evaporative Heating in Relation to Machining
 Date : October 12, 2004

5. Speaker : Abdulaziz S. Alaboodi
 Topic : Finite Element analysis of roller expanded tube-tubesheet
 joints with over enlarged tubesheet holes
 Date : October 19, 2004

6. Speaker : Mehaboob Basha N.B.
 Topic : Prediction of Turbulent Heat Transfer in Rotating
 Narrow Rectangular Channel (AR=10) oriented at 120°
 from the direction of rotation
 Date : November 02, 2004

7. Speaker : Dr. Yehia A.. Khulief
 Topic : Model-Based Detection and Isolation of Leaks in
 Pipelines with Experimental Verification
 Date : November 23, 2004

8. Speaker : Mr. Shaik Abdul Qaiyum
 Topic : Modelling of Blood Flow in a Time-Varying Shape
 Passage
 Date : November 30, 2004

9. Speaker : Dr. Zaki Ahmad
 Topic : Exploring the Corrosion Behaviour of New Generation
 Scandium Reinforced Aluminum Alloys
 Date : December 07, 2004

10. Speaker : Salem Bashmal
 Topic : Finite Element analysis of Stick-Slip Vibrations in
 Drillstrings
 Date : December 14, 2004

11. Speaker : Dr. T. Tabet
 Topic : Science and Technology at the Nanoscale
 Date : December 28, 2004

1. Speaker : Dr. Farooq Saeed
Topic : Anti-Icing System Simulation for Design Optimization -
Bombardier Aerospace, Advance Aerodynamics Dept.
Date : August 5, 2004
2. Speaker : Mr. Mueyyet Tozan
Topic : Fighter Aircraft Modernization
Date : October 2004
3. Speaker : Dr. Farooq Saeed
Topic : Aircraft Icing & Anti-Icing
Date : November, 2004
4. Speaker : Dr. Abdullah M. Al-Garni
Topic : An Experimental Investigation of an Airfoil with a
Moving Surface Boundary-Layer Control
Date : December, 2004.

Chemistry Department

1. Speaker : Mr. Shoaib Qureshi
Topic : Web of Knowledge
Date : 5th October, 2004
2. Speaker : Mr. Jaweed Yazdani,
Topic : KFUPM, IT Computing Resources
Date : 19th October 2004
3. Speaker : Dr. Mustafa M Achoui
Topic : "Brain Structure and Critical Thinking"
Date : 2nd November 2004
4. Speaker : Dr. Nicolas M. Herrera
Topic : Hazards in Laboratory & Safety Issue
Date : 23rd November, 2004
5. Speaker : Mr. Nidal Y. Abu Thabit
Topic : Asymmetric Synthesis of Aziridines
Date : 7th December, 2004
6. Speaker : Mr. Ahsan M. Shemsi
Topic : Microwave assisted Synthesis of Heterocyc
Date : 21st December, 2004

Earth Sciences Department

1. Speaker : Dr. Abdullatif Al-Shuhail

- Topic : The Potential of GPR in Ground water Contamination Detection and Monitoring
Date : October 19, 2004
2. Speaker : Dr. Ali Oncel
Title : Seismological Studies: Evaluating Linkages between Seismo-tectonic Variables in Japan, Turkey and Canada
Date : November 2, 2004
3. Speaker : Dr. Abdulwahab Abokhodair
Topic : Parameters estimation and error analysis in paleo-intensity experiments
Date : November 23, 2004

Mathematics Department

Lecturers/Seminars by Math Faculty:

1.	Speaker	:	Prof. A.H. Siddiqi
	Title	:	Certain Emerging Areas in Wavelet and Gabor Analysis
	Date	:	Sunday, October 3, 2004
2.	Speaker	:	Dr. J. Abuihlail
	Title	:	Coprime Comodules
	Date	:	Sunday, October 10, 2004
3.	Speaker	:	Dr. A. Umar
	Title	:	Lattice Paths and Partial Transformations
	Date	:	Sunday, October 17, 2004
4.	Speaker	:	Dr. M.R. Alaimia
	Title	:	Non-Selfadjoint Crossed Products Generated by Computing Automorphisms
	Date	:	Sunday, October 24, 2004
5.	Speaker	:	Prof. H. Akca
	Title	:	Impulsive Difference Equations and Their Applications
	Date	:	Sunday, November 21, 2004
6.	Speaker	:	Dr. S. Messaoudi
	Title	:	Exponential Decay for the Solution of a Viscoelastic Equation
	Date	:	Sunday, November 28, 2004
7.	Speaker	:	Dr. A.H. Joarder
	Title	:	Some Inequalities in Descriptive Statistics
	Date	:	Sunday, December 5, 2004
8.	Speaker	:	Prof. Asghar Qadir (Adjunct)
	Title	:	Significance of Symmetries
	Date	:	Sunday, December 12, 2004
9.	Speaker	:	Dr M. Al-Furaidan
	Title	:	Imprimitive Distance-Transitive Graphs
	Date	:	Sunday, December 26. 2004
10.	Speaker	:	Dr. Q.H. Ansari
	Title	:	Systems of Variational Inequalities and Nash Equilibrium

	Date	:	Problem Sunday, January 9, 2004
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Math Education Seminars

1.	Speaker	:	Dr. R.S. Alassar
	Title	:	Overview of Mathematica
	Date	:	Tuesday, September 14, 2004
2.	Speaker	:	Prof. Hassan Azad
	Title	:	Some Issues in Calculus (Part II)
	Date	:	Tuesday, September 28, 2004
3.	Speaker	:	Prof. A.H. Siddiqi
	Title	:	Teaching of Mathematics as a Technology
	Date	:	Tuesday, October 12, 2004
4.	Speaker	:	Drs. H. Tawfiq and H. Al-Attas
	Title	:	International Mathematics Competition
	Date	:	Tuesday, October 19, 2004
5.	Speaker	:	Dr. A. Laradji
	Title	:	A Brief Excursion in Number Theory
	Date	:	Tuesday, November 23, 2004
6.	Speaker	:	Prof. A. Qadir
	Title	:	Development of Mathematics in Pakistan – Academic
	Date	:	Programme of the Centre for Advanced Mathematics and Physics Tuesday, November 30, 2004
7.	Speaker	:	Drs. H. Al-Attas, J. Abuhlail, H. Tawfiq
	Title	:	Active Learning Strategies for calculus
	Date	:	Tuesday, December 21, 2004
8.	Speaker	:	Dr. M.A. Bokhari and Mr. B. Yushau
	Title	:	Local (L, ε) -approximation of a function of single variable: An alternative way to define limit
	Date	:	Tuesday, December 28, 004

One-Semester Lecture Series (041)

1	Speaker	:	Dr. S. Messaoudi
	Title	:	Sobolev Spaces
	Organized by	:	Applied Mathematics Group

Short Course

1	Speaker	:	Prof. Asghar Qadir
	Title	:	Symmetry Methods for Differential Equations and Application
	Date	:	23 November – 16 December 2004

Seminar Outside KFUPM

1. **Prof. A.H. Siddiqi**, Invitation of the department. Prof. Christensen, Copenhagen, Denmark, (Jul 4-17, 2004).
2. **Dr. Jawad Abuihlail**, (Co) Induction Functors for Categories of type $\sigma[M]$ with Applications to Categories of Comodules for Corings, Algebra Oberseminar, Heinrich-Heine Universitaet - Duesseldorf (Germany), July 7, 2004.
3. **Dr. Jawad Abuihlail**: Coprime and Cosemiprime Comodules, Algebra Oberseminar, Heinrich-Heine Universitaet - Duesseldorf (Germany), July 28, 2004.
4. **Dr. Jawad Abuihlail**, Mathematisches Institiut der Heinrich-Heine Universitaet (Duesseldorf - Gernmnay): June 11, 2004 - August 10, 2004 (Invited by Prof. Robert Wisbauer).
5. **F.D. Zaman**, Summer Workshop in Mathematics, Center for Advanced Studies in Mathematics, Lahore, Pakistan, (Aug 16-20, 2004).
6. **Berrimi, S. and Messaoudi, S.A.**, On Multi-Variable Separable Functions, Math. Dept., Zarka Private University, Jordan, (Oct. 5, 2004).
7. **Messaoudi, S.A.**, Exponential Decay for the Solution of a Viscoelastic Equation, Math. Dept UAEU, United Arab Emirates, (Dec. 15, 2004).

Workshop / Carrier Day

1. **K. Beg**, Wavelets and Signal Processing, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb – May 23, 2004).
2. **K. Beg**, Workshop on Industrial Mathematics, KFUPM, Dhahran, Saudi Arabia, (Feb 29 – Mar 2, 2004).
3. **K. Beg**, Coordination of Multi-Section Courses ad Multiple-Choice Exams, KFUPM, Saudi Arabia, (Feb 22-22, 2004).
4. **K. Beg**, Developing the Communication Skills of Students, DAD, KFUPM, Dhahran, Saudi Arabia, (Sep 4-5, 2004).
5. **M. Malik**, Carrier Day Activities Volunteer, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (May 1-3, 2004).
6. **M. Malik**, Volunteer for Open Day Activities, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Mar 18 – Apr 20, 2004).
7. **M. Malik**, Discussion Forum: “Faculty and Student Motivation”, KFUPM, Dhahran, Saudi Arabia, (May 23-23, 2004).
8. **M. Malik**, Workshop in Industrial Mathematics, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb 29, 2004).

9. **M. Malik**, Workshop: “MATLAB” First Session, KFUPM, Dhahran, Saudi Arabia, (Feb 17, 2004).
10. **M. Malik**, Workshop: “MATLAB” Second Session, KFUPM, Dhahran, Saudi Arabia, (Feb 24, 2004).
11. **F.D. Zaman**, Workshop in Industrial Mathematics, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb 29 – Mar 2, 2004).
12. **F.D. Zaman**, Summer Workshop in Mathematics, Center for Advanced Studies in Mathematics, Lahore, Pakistan, Aug 16-20, 2004.
13. **R. Alassar**, Fastflo, KFUPM, Department of Mathematical Sciences, Saudi Arabia, (Mar 3-4, 2004).
14. **R. Alassar**, Computer Graphics, DAD, KFUPM, Dhahran, Saudi Arabia, (2004).
15. **R. Alassar**, Workshop in Industrial Mathematics, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb 29-Mar 2, 2004).
16. **B. Yushau**, Winter Research School, NRF (SA) and NSF (USA), Port Alfred, South Africa, (Jun 20-25, 2004).
17. **Q.H. Ansari**, Workshop in Industrial Mathematics KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb 29-Mar 2, 2004).
18. **J.Y. Abuhlail**, Applied Mathematics Day, KFUPM, Department of Mathematical Sciences, Saudi Arabia, (Apr 11, 2004).
19. **J.Y. Abuhlail**, Workshop in Industrial Mathematics, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb 29-Mar 2, 2004).
20. **N.E. Tatar**, Developing the Communication Skills of Students, DAD, KFUPM, Dhahran, Saudi Arabia, (Sep 4-5, 2004).
21. **N.E. Tatar**, Active Learning to Foster Critical Thinking, DAD, KFUPM, Dhahran, Saudi Arabia, (Sep 6-6, 2004).
22. **R. Latif**, Workshop in Industrial Mathematics KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Feb 29-Mar 2, 2004).
23. **N.E. Tatar**, Mentoring to Enhance Faculty Development, DAD, KFUPM, Department of Mathematical Sciences, Dhahran, Saudi Arabia, (Sep 1-1, 2004).
24. **N.E. Tatar**, Using Groups and Students Teams to Promote Learning, DAD, KFUPM, Dhahran, Saudi Arabia, (Sep 7-7, 2004).

Thesis Defense

1.	Speaker Title Date	: : : Tuesday, May 25, 2004	Mr. Saleh Ahmed Al-Humaidi Inverse Scattering Transform for Variable Coefficient KdV Equation
2.	Speaker Title Date	: : : Sunday, December 26, 2004	S.A. Al-Basharawi Reductive Lie Groups
3.	Speaker Title Date	: : : Sunday, January 2, 2005	M.H. Al-Lail Wavelet Analysis and Using Wavelet Bases for Solving Differential Operator
4.	Speaker Title Date	: : : Wednesday, January 5, 2005	A. Ali Al-Juhani Breakdown of Solutions of a System of Heat Propagation with Second Sound

Student's Seminar

1.	Speaker Title Date	: : : Sunday, October 24, 2004	Mr. Suraizou Sogome (Math 599) Dimension Theory in Noetherian Rings
2.	Speaker Title Date	: : : Monday, January 3, 2005	Mr. Aijaz Ahmad (Math 599) Solutions of Differential Equations Using Symmetries
3.	Speaker Title Date	: : : Tuesday, January 4, 2004	Mr. Eyad Saleh Al-Duhaim (Math 490) Gamma Function

Physics

1. Speaker : Dr. Harry Mavromatis
Title : A New Bessel Function Reseal and a Scattering Application
Date : 19 Sept. 2004
2. Speaker : Mr. M.S. Kariaper
Title : On-Line Course – Physics 101
Date : 26 Sept. 2004
3. Speaker : Dr. A.D. Al-Haidari
Title : Extracting Density Information from finite Hamiltonian Matrices
Date : 17 Oct. 2004
4. Speaker : Dr. Al-Jalal
Title : Remoter Ultrasonic Detector Using He-Ne Laser and \ Confocal Fabry-Perot Interferometer
Date : 24 Oct. 2004

5. Speaker : Dr. Abdel-Aal
Title : Data Mining & Medical Infomatics
Date : 31 Oct. 2004
6. Speaker : Dr. Maalej
Title : What A Medical Physicist Can Do To Improve The
Chances Of Early Detection Of Breast Cancer
Date : 21 Nov. 2004
7. Speaker : Dr. Al-Kuhaili
Title : 7 December 2004
Date : Optical Properties of Thin Films
8. Speaker : Dr. Al-Amoudi
Title : Analytic Approximate Solution of the Bose Einstein
Ground State Using Dynamical Renormalization Group
Approach
Date : 19 December 2004
9. Speaker : Dr. Abdullah Al-Sunaidi
Title : Mesoscale Simulation of the Response of Liquid Crystal
Molecules to External Aligning Fields
Date : 28 December 2004
10. Speaker : Abdullah Zahrani (Student)
Title : Recent Ether Renaissance
Date : 2 January 2005

Computer Engineering Department

1. Speaker : Mr. Theeb A. Al-Gahtani
Topic : Elliptic Curve Cryptography (ECC)
Date : 19.10.2004
2. Speaker : Mr. Khawar Saeed Khan
Topic : Performance Evaluation for IEEE 802.11 DCF
Date : 7.12.2004
3. Speaker : Mr. Khaja M. Mohammed
Topic : Vector Quantization Techniques for Image Compression
Date : 21.12.2004
4. Speaker : Mr. Mohammed Yousuf Shareef
Topic : Motion Estimation Techniques for Video Compression
Date : 28.12.2004

Systems Engineering Department

SPEAKER : Dr. Hesham Al-Fares

TOPIC : “Optimum Tour Scheduling of IT Desk Help Agents”
CONFERENCE : 2nd International Industrial Engineering Conference (IIEC)
2004, Riyadh, Saudi Arabia
DATE : December 19-21, 2004

- SPEAKER** : Dr. Abdul Raouf
TOPIC : “Industrial Engineering Role in Meeting the Challenges of 21st Century”
CONFERENCE : 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia
DATE : December 19-21, 2004
- SPEAKER** : Dr. Mohammed Ben-Daya
TOPIC : “On Supplier Selection and Quality Management in Supply Chains”
CONFERENCE : 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia
DATE : December 19-21, 2004
- SPEAKER** : Dr. Muhammad Shafiq
TOPIC : “Internal Model Control-Based on U-Model”
CONFERENCE : 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia
DATE : December 19-21, 2004
- SPEAKER** : Dr. Muhammad Shafiq
TOPIC : “Fuzzy Adaptive Internal Model Control of Heating Process”
CONFERENCE : 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia
DATE : December 19-21, 2004
- SPEAKER** : Dr. Saleh Duffuaa
TOPIC : “**Measuring and Improving Maintenance Performance**”
CONFERENCE : 2nd International Industrial Engineering Conference (IIEC) 2004, Riyadh, Saudi Arabia
DATE : December 19-21, 2004

Architectural Engineering Department

- SPEAKER** : Dr. M. Al-Homoud
TOPIC : “**KFUPM Experience in Program Self-Assessment**”
CONFERENCE : Invited Presentation in the Workshop on The Role and Responsibilities of Assessment Centers in Higher Educational Institutions
DATE : December 21, 2004 (Riyadh)

14. LECTURES AND SEMINARS GIVEN BY OUTSIDE SPEAKERS AT KFUPM

College of Sciences

Chemistry

1. Speaker : Mr Mohammed A. Al-Moniee, Saudi ARAMCO,
Topic : Optimization of Microbial Control in a Field Operation
Date : 12th October, 2004

Earth Sciences

1. Speaker : Mr. Hassan M. Hassan (KFUPM, RI)
Topic : An overview of probe (mini)-permeameter
Date : June 3, 2004
2. Speaker : Prof. Sadoon Morad (Uppsala University, Sweden)
Topic : Linking Diagnosis to Sequence Stratigraphy: A Better way to Unravel Reservoir-Quality Evolution of Sandstones
Date : December 19, 2004
3. Speaker : Prof. Sadoon Morad (Uppsala University, Sweden)
Topic : Formation of Deep Sandstone Reservoirs: Preservation versus creation of porosity and permeability
Date : December 21, 2004

Mathematics

Lectures/Seminars by outside speakers

1.	Speaker	:	Dr. Hasine El Mir (KFU)
	Title	:	Extension of Plurisubharmonic Currents
	Date	:	Sunday, September 19, 2004
2.	Speaker	:	Prof. Riazuddin (Director of National Center for Physics, Islamabad, Pakistan)
	Title	:	Role of Mathematics in Physical Sciences
	Date	:	Sunday, September 26, 2004
3.	Speaker	:	Dr. Ali Kanso (Hail Community College)
	Title	:	Clock-Controlled Generator (CCSG) for Stream Cipher Applications (Data Encryption)
	Date	:	Sunday, October 31, 2004
4.	Speaker	:	Dr. Abdul Hamid Kara (Univ. of the Witwatersrand, South Africa)
	Title	:	Applications of Symmetry Methods to Differential Equations (odes and pdes)
	Date	:	Sunday, December 5, 2004
5.	Speaker	:	Dr. Abdul Hamid Kara (Univ. of the Witwatersrand, South Africa)
	Title	:	

	Date	:	Symmetries and Conservation Laws – Their Uses in the Analysis of Differential Equations Tuesday, December 7, 2004
6.	Speaker	:	Dr. Abdulaziz Al-Haidari (Physics Dept. KFUPM)
	Title	:	Deformation of the Three-Term Recursion Relation and Generation of New Orthogonal Polynomials
	Date	:	Sunday, December 19, 2004

Commutative Algebra Weekly Seminar (Organized by Drs. S. Kabbaj & A. Mimouni)

1	Speaker	:	Mr. S. Sogome
	Title	:	Dimension Theory in Noetherian Rings (1)
	Date	:	Sunday, September 19, 2004
2	Speaker	:	Dr. Y.J. Abuhlail
	Title	:	Overrings of the Form $D + M$ (1)
	Date	:	Sunday, September 19, 2004
3	Speaker	:	Mr. S. Sogome
	Title	:	Dimension Theory in Noetherian Rings (2)
	Date	:	Sunday, September 26, 2004
4	Speaker	:	Dr. Y.J. Abuhlail
	Title	:	Overrings of the Form $D + M$ (2)
	Date	:	Sunday, September 26, 2004
5	Speaker	:	Mr. S. Sogome
	Title	:	Dimension Theory in Noetherian Rings (3)
	Date	:	Sunday, October 3, 2004
6	Speaker	:	Dr. Y.J. Abuhlail
	Title	:	When is $D + M$ Coherent?
	Date	:	Sunday, October 3, 2004
7	Speaker	:	Mr. S. Sogome
	Title	:	Dimension Theory in Noetherian Rings (4)
	Date	:	Sunday, October 10, 2004
8	Speaker	:	Dr. A. Mimouni
	Title	:	Arnold-Matsuda's Example of an almost Krull Domain
	Date	:	Sunday, October 10, 2004
9	Speaker	:	Dr. Y.J. Abuhlail
	Title	:	When is $D + M$ Coherent? (2)
	Date	:	Sunday, October 17, 2004
10	Speaker	:	Dr. I. Al-Rasasi
	Title	:	Dimension of Integer-valued Polynomial Rings (1)
	Date	:	Sunday, October 17, 2004
11	Speaker	:	Mr. Sogome
	Title	:	Dimension of Integer-valued Polynomial Rings (2)
	Date	:	Sunday, October 24, 2004
12	Speaker	:	Dr. I. Al-Rasasi
	Title	:	Dimension of Integer-valued Polynomial Rings (2)
	Date	:	Sunday, October 24, 2004
13	Speaker	:	Mr. A. Mimouni
	Title	:	On FGV Domains (of M. Zafrullah)

	Date	:	Sunday, November 28, 2004
14	Speaker	:	Dr. I. Al-Rasasi
	Title	:	Spectrum of an Integer-valued Polynomial Ring (1)
	Date	:	Sunday, November 28, 2004
15	Speaker	:	Dr. A. Mimouni
	Title	:	On Generalized Krull Domains (of S. El-Baghdadi)
	Date	:	Sunday, December 5, 2004
16	Speaker	:	Dr. Y.J. Abuhlail
	Title	:	A Tilting Module Over Commutative Integral Domains (1)
	Date	:	Sunday, December 5, 2004
17	Speaker	:	Dr. S. Kabbaj
	Title	:	Two Conjectures in Dimension Theory (1)
	Date	:	Sunday, December 12, 2004
18	Speaker	:	Dr. I. Al-Rasasi
	Title	:	Spectrum of an Integer-valued Polynomial Ring (2)
	Date	:	Sunday, December 12, 2004
19	Speaker	:	Dr. S. Kabbaj
	Title	:	Two Conjectures in Dimension Theory (2)
	Date	:	Sunday, December 19, 2004
20	Speaker	:	Dr. A. Mimouni
	Title	:	Zanardo-Zannier and Bazzoni's Theorems on Clifford
	Date	:	Regularity (Towards the Prufer Property)
		:	Sunday, December 19, 2004
21	Speaker	:	Dr. I. Al-Rasasi
	Title	:	Spectrum of an Integer-valued Polynomial Ring (3)
	Date	:	Sunday, December 26, 2004
22	Speaker	:	Dr. A. Mimouni
	Title	:	Bazzoni's Theorem on Clifford Regularity (towards the Finite
	Date	:	Character Property)
		:	Sunday, December 26, 2004
23	Speaker	:	S. Sogome
	Title	:	Grobner/Standard Bases and Syzygies via Singular
	Date	:	Sunday, January 2, 2004

Physics

1. Speaker : Riazuddin

Title : Neutrinos

Date : 21 Sept. 2004
2. Speaker : Riazuddin

Title : Why basic research is necessary for industrial development

Date : 28 Sept. 2004

3. Speaker : Falah Abu-Jarad
Title : Radiation Sources in Oil Industry (Utilization & Protection)
Date : 3 Oct. 2004
4. Speaker : F. Zaman
Title : On Perturbation and Beyond
Date : 10 Oct. 2004
5. Speaker : Saati
Title : Semiconductors History- Evolution, Rise and Demise
Date : 28 Nov. 2004
6. Speaker : Asghar Qadir
Title : Qadir-Wheeler Suture Model and its Implications
Date : 5 December 2004
7. Speaker : Mostafa El-Shafei
Title : Computational Methods in Bioinformatics
Date : 12 December 2004
8. Speaker : Andrew Dacre
Title : 11th Edition of Young&Freedman(Original Authors: Sears & Zemansky): 'University Physics with Modern Physics' and companion 'Mastering Physics', the online tutoring system
Date : 21 December 2004
9. Speaker : A. H. Siddiqi
Title : Emerging Areas of Interdisciplinary research
Date : 26 December 2004

SEMINAR/TALK GIVEN BY PHYSICS FACULTY AT OUTSIDE KFUPM

1. Speaker : M.A. Gondal
Title : lobal warming and its effects on humans,forest and climate”
Place& Date : ACS Meetings, Gulf Meridian, Alkhobar, September 2004
2. Speaker : M.A. Gondal
Title : Laser-induced Desulfurization of Oil and other aromatic compounds,
Place & Date : Saudi Aramco January, 2004.
3. Speaker : Nabil Maalej
Title : Quality in Different Modalities of Medical Imaging with focus on Mammography Applications.
Place & Date : IEEE Saudi Arabia Section (December 14, 2004)

- OFFERED BY OUTSIDE/INVITED SPEAKERS:

SPEAKER : Mr. Ifthikar Nadeem (Information Strategy, Finance and Administrative Affairs, KFUPM)

TOPIC : “The Challenge of ERP in Higher Education”

DATE : October 12, 2004

SPEAKER : Engr. Amrou Al-Sharif (Teclusion Company, Dubai)

TOPIC : “Virtual Instrumentation: Revolutionizing Measurement and Automation Solutions for Industrial and Academia”

DATE : November 30, 2004

- OFFERED BY DEPARTMENT FACULTY:

SPEAKER : Dr. Mansour Al-Dajani

TOPIC : “Plant Wireless Data Mobility”

DATE : Sept. 28, 2004

SPEAKER : Dr. Shokri Selim

TOPIC : “Worker Assignment Under Noisy Conditions”

DATE : October 05, 2004

SPEAKER : Mr. Mohammed Al-Sadiq

TOPIC : “Implementation of Demand Flow Technology at Zamil Air-Conditioning Co.”

DATE : October 19, 2004

SPEAKER : Dr. Kadir Ertogral

TOPIC : “Multi Item Single Source Ordering Problem with Transportation Cost: A Lagrangian Decomposition Approach”

DATE : November 23, 2004

SPEAKER : Dr. Abdul Raouf

TOPIC : “Developing a Customer-Supplier Model”

DATE : December 26, 2004

SPEAKER : Mr. Ahmed Al-Turki

TOPIC : “Determination of Optimal Target Values for Two Independent Processes in Series Producing a Product with Two Quality Characteristics”

DATE : **December 28, 2004**

SPEAKER : **Mr. Rami Afif Asad**

TOPIC : “Coordinating Inventory Decisions in a Multi-Layer Supply Chain”

DATE : January 2, 2005

SPEAKER : **Mr. Faisal A. Al-Nasser**

TOPIC : “Introduction to Potential Hazards in Heavy Industrial Plants”

DATE : January 2, 2005