

RESEARCH NEWSLETTER

A RESEARCH COMMITTEE PUBLICATION

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FOREWORD

This second 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 January 2005 to June 2005. 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 2004-05, the University supported 87 projects in three categories, which shows an increase of about 17.56% from the number of projects supported in 2003-04. This increase has resulted on account of the introduction of Junior Faculty Research Grants for the first time in the University.

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 for compiling this edition of the Research Newsletter.

Dr. Mohammad S. Al-Homoud
Dean of Scientific Research

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

1. Project No. EE/POWER/282

Investigators: Dr. Mohammad Abido

Dr. Youssef Abdel-Magid

Title: Power System Stability Enhancement Using Unified Power Flow Controllers

Abstract

Inadequate or negative damping of low frequency oscillations has, in many cases, imposed undesired limitations on the operation of power systems. In some cases, they continue to grow causing system separation if the system is exposed to a disturbance.

In this project, various damping schemes such as power system stabilizers (PSSs) and unified power flow controller (UPFC) based stabilizers are proposed for mitigation of low frequency oscillations. It is also our aim to study the coordination problem among the proposed schemes. We propose particle swarm optimization (PSO) technique for tuning of the proposed stabilizer parameters. The design problem will be formulated as an optimization problem where PSO will be applied to search for the optimal settings of stabilizer parameters. The effectiveness of the proposed stabilizers in enhancing the transient as well as the dynamic stability will be tested and examined through the eigenvalue analysis and the nonlinear simulations. The responses of the power system equipped with the proposed stabilizers will be compared with that available in the literature. The effectiveness of UPFC will also be compared with other flexible AC transmission systems (FACTS) devices such as a thyristor controlled static VAR compensator (SVC); a thyristor-controlled series capacitor (TCSC); and a thyristor-controlled phase shifter (TCPS).

2. Project No. PH/LIQUID/283

Investigators: Dr. Abdullah Alsunaidi

Dr. Hocine Bahlouli

Title: Mesoscale Simulation of the Response of Liquid Crystal Molecules to External Aligning Fields

Abstract

The delicate nature of the liquid-crystal phases make them easily deformable under the influence of applied fields. Here we use the dissipative particle dynamics (DPD) method to study the order-disorder transitions in rod-like and rod-coil molecules. The strength of the field, its orientation with respect to the molecular axis and the temperature of the system, are the free parameters in this study. The torque applied by the external field, will be competing with the microphase separation and the rod ordering processes. Starting from fully disordered systems, we would like to investigate the dynamics by which the system would undergo phase ordering under the applied field. Also, starting from a fully ordered system (smectic lamellar, spherical and cylindrical micelles), we study the effect

of the applied field on the deformation of these mesophase structures. We will also study the shift of the phase boundaries and the order-disorder temperature due to the aligning

field. Finally, the relaxation of the molecules after the field is switched off will be investigated.

3. Project No. IM/ISECURITY/285

**Investigators: Dr. Ahmad Abu Musa
Dr. Jassim Al-Rumaihi
Dr. Muhammad Al-Khaldi**

Title: Evaluating the Security Controls of Computerized Accounting Information Systems in Saudi Arabian Banks

Abstract

The focus of this research is on evaluating the existence and adequacy of implemented security controls of Computerized Accounting Information Systems (CAIS) in the Saudi Arabia banking industry (SABI). The current research is conducted in response to numerous calls for research, that have emphasised the necessity of conducting theoretical and empirical research to enhance the body of knowledge concerned with CAIS security. There is a shortage of studies which attempt to empirically evaluate CAIS security. This research represents a substantial step in that direction. This study addresses the concept of CAIS security and its main components in an attempt to clarify confusion in that area. Through theoretical conceptualisation of information and systems security an integrated theoretical framework of CAIS security which includes security objectives, threats and controls will be developed. The current research focuses on evaluating the security of CAIS rather than the security of specific information technology products and accounting software: therefore it contributes to filling a vacuum and dearth of empirical study in this research area.

An empirical survey, using a self-administrated questionnaire, has been conducted to investigate the opinions of the heads of internal audit departments (HoIAD) and the heads of computer departments (HoCD) in the entire population of the SABI regarding the following issues:

- ◆ the nature and characteristics of CAIS; and
- ◆ the prospective security controls implemented to eliminate or reduce the security threats.

This study would provide valuable empirical results regarding the characteristics of CAIS security policies, and inadequate implemented CAIS security controls in the SABI. Accordingly some recommendations would be suggested to strengthen security controls in the Saudi banking sector. From a practical standpoint, managers and practitioners alike stand to gain from the findings of this study. The results enable managers and practitioners to better secure their CAIS and to champion information technology development for success of the business.

4. Project No. PH/OPTICAL/286

Investigators: Dr. Mohammad Al-Kuhaili
Dr. S.M.A. Durrani (Phys)
Dr. E.E. Khawaja (Consultant)

Title: Development of a New Method for Determining the Optical Constants (n and k) of Thin Inhomogeneous Films

Abstract

This is an in-house research proposal to be submitted to the Research Committee of King Fahd University of Petroleum and Minerals. The major objective of the proposed research is to develop a new method for determining the optical constants (indices of refraction, n , and absorption, k) of thin inhomogeneous films. The proposed work is applied in nature. There are numerous applications for multilayer optical coatings. For the design and manufacture of multilayers, a good knowledge of the optical constants of each of the materials used in the design, is essential. Homogeneity of the layers is a common approximation in the process of multilayer design. Unfortunately, in the real world, we have to accept inhomogeneity, which can be a source of error that cannot always be neglected. The existing methods for determining the optical constants of thin inhomogeneous films deal with nonabsorbing films (absorption index, $k = 0$) or at the most with films that have very small absorption ($k < 0.02$). Therefore, there is a need for a method that can determine n and k for an inhomogeneous film of an absorbing material. The present proposal deals with a development of such a method. The method developed will be tested for its application to the well-known inhomogeneous films of cerium oxide. Spectrophotometric measurements of near normal incidence reflectance and transmittance of a sample will be required. The proposed work will be completed in 12 months. It is anticipated that this work will yield a new method for determining the optical constants of thin inhomogeneous films. This work is expected to yield some information for possible publication in a refereed journal and conference presentation. One interim report and a final report will be submitted during the course of this project.

5. Project No. COE/DIGITAL/287

Investigator: Dr. Mohammad Elrabaa (COE)

Title: Development of Digital Circuit Techniques for Clock Recovery and Data Re-Timing for High Speed Non-Return-to-Zero Source-Synchronous Serial Data Communications

Abstract

Recently, high-speed digital-transmission schemes such as synchronous optical networks/synchronous digital hierarchy (SONET/SDH) became the major choice for data transmission over wide area networks (WANs) as well as local area networks (LANs). These techniques require the development of low-cost high-speed clock recovery circuits (CRCs) in the repeaters and receivers that can accurately extract clock signals from non-return-to-zero (NRZ) source-synchronous serial bit streams. The goal of this project is to develop new circuit technique for performing clock recovery and data re-timing functions for high-speed source synchronous data communications, such as in burst-mode data transmission. These new techniques are to be fully digital, non-PLL-based, and capable of retiming the output clock

with the received data within few data transitions. The absence of analog filters or other analog blocks should make the area much smaller than conventional circuitry. It can also be described by any hardware description language, simulated, and synthesized into any digital process. This enables it to be ported from one technology to another and support system on a chip (SOC) designs. The new techniques are to be verified with Hspice® simulations and FPGA implementations.

6. Project No. ME/ALLOYS/288

**Investigator: Dr. Zaki Ahmad (ME)
Dr. Meyssar Al-Haddad (ME)
Mr. B.J. Abdul Aleem (ME)**

Title: Exploring the Corrosion Behavior of New Generation Scandium Reinforced Aluminum Alloys for Service Performance

Abstract

The recent discovery that adding small quantities of Sc (0.3-0.9%) to aluminum provides highest increment of strengthening per atomic percent of any alloying element has generated a great deal of interest in aluminum industry.

In a rush to explore its high performance capabilities, one of the most crucial parameter - corrosion which effects the service performance, capability and application potential has been completely left unaddressed. The project, therefore, aims to address the corrosion behavior of selected Al-Mg-Sc alloys in corrosive environment. Al-Mg alloys containing 0.3 to 0.9 wt% Sc and 2-4 wt% Mg would be used for corrosion studies in sea water. Electrochemical corrosion studies would include weight loss, electrochemical, impedance, recirculating loop and elevated temperature studies. Microanalytical studies using scanning electro microscopy, energy depressive spectroscopy, X-ray diffraction etc. would be conducted to identify corrosion and establish a mechanism. The corrosion data generated would be used to predict the service performance of scandium containing aluminum alloys and it would provide a more realistic basis to predict their application potential in military and commercial transport, automobiles, high speed train, sporting good, power generation, process plants and salt water systems where resists to corrosion is a key factor. The above study would also lead to the growth of research on high performance materials in the Kingdom.

7. Project No. CIM/ISLAMIC MGT/289

Investigator: Dr. Mohammad Al-Bureay

Title: Sabbatical Leave Proposal to write a book on Islamic Management

Abstract

During the past thirty years, hundred of titles on the subject come out both in Arabic and English. The proposed book includes a resource and reference bibliographical book on the subject of Islamic Management which is badly needed for the interest of researchers and experts as well as students of Islamic Management in specific and comparative management in general.

Many scholars and students of Islamic Management always ask me in various occasions about a reference book that contains all books, monographs, research, and articles in the area of Islamic Management. It simply does not exist. With the help of top management at King Fahd University of Petroleum and Minerals (KFUPM), I will take this opportunity to perform this long overdue task.

It is important for me and for those who are interested in the subject to write this new source book on the writings on Islamic Management. Thousands of people in the Arab and Muslim world will welcome this project and benefit from it. None of its kind existed in the Arabic library as far as I know. It will be the first of its kind. It is also vital to find out the new development in the field in the last ten years-years. I spent most of my time during the last six years in administrative positions far away from research and writings on the subject of Islamic Management despite a publication of two or three books. It is vital for me to be abreast and refresh myself on the new development on the subject. This project will make me follow up my previous research on Management in Islam.

This project of gathering 700-1000 sources of Islamic Management in one volume would be worthwhile for the following reasons:

- a. No such work exists on print. Lack of such a work in the Arabic library makes this project an urgent and a necessary one.
- b. Badly needed to serve scholars and students alike.
- c. A way to document printed sources in one volume.
- d. Islamic studies in general and Islamic Management in specific are gaining momentum and importance worldwide.

The practical experience gained by the author as well as his theoretical background and various publications in the subject make me suitable to do this project and provide an up to date source book on the sources and bibliographical references on management in Islam which will work as a guide for the researcher in the subject.

In addition, the author would write a reference and resource book on the subject of Islamic Management which is badly needed for the interest of researchers and experts as well as students of Islamic Management in specific and comparative management in general. He has plans to 700-1000 references in the field of Islamic Management and related fields such as politics, administration, bureaucracy etc. The period will cover the past up to 2004. Books, monographs, research papers and articles will be sought and looked for to be included in the volume. He would also visit some libraries in the Kingdom and outside. I have already scheduled a visit during this summer to IIUM (International Islamic University, Malaysia) which is famous of its library, and made arrangement to meet some scholars in Islamic management for this purpose.

8. Project No. ES/GROUNDWATER/290

Investigator: Dr. Mohammad Makkawi

Title: Sabbatical Leave Proposal entitled “Groundwater resources and environmental management: Industrial Experience in Modeling Groundwater Aquifers”

Abstract

The objective of this one-year sabbatical leave is to gain industrial experience, conduct an intellectual activity, and present the practice of industry in Groundwater Resources and Environmental Management (GREM). To achieve this goal, the proponent will integrate his scientific knowledge with industrial practices by working in Saudi Aramco and visiting international research and industrial centers. The work plan will include a description of the national & international industry-standard policies, practical procedures, and the nature of difficulties encountered in managing groundwater resources. GREM advanced tools like numerical models will, also, be experienced to predict the responses of groundwater aquifers under different physical & environmental stresses.

Several Government organizations are evaluating the policies and procedures related to the sustainability of groundwater resources in Saudi Arabia. To fulfill evaluation requirements, the Ministry of Water & Electricity (MWE) and the Presidency of Meteorology and Environment (PME) will find it necessary to utilize GREM for planning & developing local and regional groundwater resources. Consequently, this will reflect on the need to develop local expertise in this important field of specialty. The outcome of this study is desired to serve these necessities.

By completing this activity, such an endeavor will add up to what had been accomplished earlier by the proponent's scientific researches and applied projects. The outcome of this leave is also important for the Department of Earth Sciences since Groundwater Modeling and Groundwater Planning & Management courses are offered in both Geology and Environmental Sciences graduate programs. Industrial experience will enrich the contents of both subjects. The knowledge that will be gained from this leave is also important to KFUPM because of the emerging demand for research and training in GREM in Saudi Arabia.

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. 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	Photoxidation of MTBE in the Presence of Hydrogen Peroxide (CHE/MTBE/275)
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 Recog- nition: A Need in Arabization (EE/AUTO- TEXT/232)

College / Department -----	Principal Investigator / Co-Investigator(s) -----	Title of the Project and its Code -----
Electrical Engineering	Dr. M.A. Abido Dr. Youssef Abdel-Magid	Power System Stability Enhancement Using Unified Power Flow Controllers (EE/POWER/282)
Mechanical Engineering	Dr. Hassan M. Badr Dr. M.A. Habib Dr. S.A.M. Said Dr. R. Ben Mansour	Turbulent Natural Convec- tion Flow in Parallel and Converging-Plate Vertical Channels (ME/TURBULENT/246)
Mechanical Engineering	Dr. Zaki Ahmad (ME)	Principles of Corrosion Engineering and Corrosion Control (Book-writing Project) (ME/COR. 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)
Mechanical Engineering	Dr. Zaki Ahmad Dr. Maysseer Al-Haddad Mr. B.J. Abdul-Aleem	Exploring the Corrosion Behavior of New Generation Scandium Reinforced Aluminum Alloys for Service Performance (ME/ALLOYS/288)
College of Computer Science & Engineering		
Computer Engineering Department	Dr. Mohammad Sadiq Sait Dr. A.S. Abdul Waheed Mr. Mahmoud R. Minhas	Parallel Iterative Heuristics for Performance-Driven Low- Power VLSI Standard Cell Placement (COE/CELL.PLACE/263)
Computer Engineering Department	Dr. Mohammad Elrabaa	Development of Digital Circuit Techniques for Clock Recovery and Data Re-Timing for High Speed Non-Return-to-Zero Source-Synchronous Serial Data Communications (COE/DIGITAL/287)

College / Department -----	Principal Investigator / Co-Investigator(s) -----	Title of the Project and its Code -----
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)
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
Chemistry	Dr. Anvarhusain Isab Dr. M.I.M. Wazeer	Multinuclear NMR Study of the Interactions of some Sulfur Containing Biologically Important Ligands with CD^{2+} and Hg^{2+} Ions (CY/NMR STUDY/277)
Islamic & Arabic Studies Dept.	Dr. Ibrahim Mutriff	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)

College / Department -----	Principal Investigator / Co-Investigator(s) -----	Title of the Project and its Code -----
Mathematical Sciences	Dr. Faisal Fairag	Theoretical and Computational Aspects of the Stream Function Form of a Ladyzhenskaya Model for Incompressible Viscous Flow (MS/STREAM FUNCTION/278)
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)
Physics	Dr. Abdullah Alsunaidi Dr. H. Bahlouli	Mesoscale Simulation of the Response of Liquid Crystal Molecules to External Aligning Fields (PH/LIQUID/283)
Physics	Dr. Mohammad Al-Kuhaili Dr. S.M.A. Durrani Dr. E.E. Khawaja (Consultant)	Development of a New Method for Determining the Optical Constants (n and k) of Thin Inhomogeneous Films (PH/OPTICAL/286)
College of Environmental Design (Construction Engineering & Management Dept.)	Dr. Mohammad Al-Khalil	The Value Engineering Experience at Saudi Aramco (CEM/VALUE ENG/276)

4. RESEARCH PROPOSALS UNDER REVIEW

#	Name of Faculty & Dept.	Title of the Research Proposal
1.	Dr. H. Bahlouli (Phys) Dr. A. Alsunaidi (Phys) Dr. S. Al-Amoudi (Phys)	Transport Properties of Nano-Structure Devices
2.	Dr. Wolfgang Forner (Chem) Dr. Hassan M. Badawi (Chem)	Potential Surfaces and Vibrational Analyses of Some Halopropanols
3.	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
4.	Dr. Abul Hasan Siddiqi (Math) Dr. Hattan Tawfik(Math)	Wavelet and Fractal Methods for the Analysis of Meteorological Data of Saudi Arabia
5.	Dr. Khaled Salah (Asst. Prof.) ICS Mr. Khalid El-Badawi (Lecturer)	A Methodology for Successful Voice over IP Deployment
6.	Dr. Mohammad Fettouhi (Chem) Dr. Bassam El Ali (Chemistry) Dr. Khalil Ziq (Physics)	New Group 10 metal complexes based on chelate ligands bearing nitroxide radicals. Magnetic properties and Catalytic performance in Oxidation Reactions of Alcohols
7.	Dr. M. Saleh Ashoor (IAS Dept.) Dr. Israr S. Khan (CIM) Dr. Gazeh K. Hamadeh (Medical Center)	An Investigation of Repetitive Strain Injuries (RSI) Among the Computer Users in Universities of Saudi Arabia
8.	Dr. Sulaiman Al-Khattaf (Che) Dr. Raafat Alnaizy (Che)	A Novel Process for Methanol Alkylation of Toluene to Produce Xylenes
9.	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
10.	Dr. Esam Hamad (Che)	A New Model for the Gibbs Free Energy: Effect of Pressure on Liquid Phase Behavior (Release Time Proposal)
11.	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.
12.	Dr. M. Sarfraz, ICS Dept.	Reverse Engineering for Geometric Models Using Evolutionary Heuristics
13.	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
14.	Dr. Muhammad Shafiq (SE) Dr. Fouad Al-Sunni (SE)	Adaptive Tracking of Non-Minimum Phase Discrete-Time Plants Using Inverses of

	Dr. Jauhar Ali (SE)	Signals
15.	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
16.	Dr. Jawad Abuihlail (Math)	Primeness and Coprimeness Conditions for Comodules and Corings
17.	Dr. Rabee M. Reffat (Arc) Mr. Yasser Hany Alsawy (Arc)	A Semantic-Based Virtual Design Environment for Digital Designing in Architecture
18.	Dr. Mohammed A. Al-Daous (Chem)	Growth of Uniform Zeolite Layers on 3D Ordered Macroporous Anion Modified Zirconia: Synthesis, Characterization, and Catalytic Evaluation
19.	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
20.	Dr. Salih Duffuaa, Dr. Mohd. Darwish and Dr. Ahmed E. Haron (all SE Dept.)	Multi-Objective Mathematical Models for Process Targeting
21.	Dr. M.I. Al-Jarallah Mr. Fazal-ur-Rehman Dr. A. Al-Solami (all Phys Dept)	Indoor Radon Survey in Hail City of Saudi Arabia
22.	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
23.	Dr. Salim Messaoudi (Math)	On Some Singular Viscoelastic Problems
24.	Dr. Ahmed Yamani (EE) Dr. Mohamed Deriche (EE)	Extraction of Optimal Features from Ultrasonic NDT Signals Using Time-Frequency and Time-Scale Distributions.
25.	Dr. Walid Abu Dayyeh (Math)	Estimating $P(Y < X)$ using Ranked Set Sampling in Case of the EAxponential Distribution
26.	Dr. Hassen A. Muttalak (Math) Dr. Walid S. Abu-Dayyeh (Math)	Confidence intervals estimation of the location and scale parameters of the logistic distribution using the pivotal method.
27.	Dr. Ibnelwaleed A. Hussein, Dr. Basel F. Abu Sharkh, Dr. Muhammad Al-Arfaj, Dr. João B.P. Soares, Professor of Chemical Eng., University of Waterloo, Canada, Consultant	Synthesis; Solution, Melt, and Solid-State Properties; and Modeling of Metallocene Polyolefins with Controlled Long Chain Branching
28.	Dr. M. Ahmad and Dr. Saleh I. Al-Qureishi, Physics	Optical Microscopy of Water Trees in HV Cables from the Central Region of Saudi Electricity Company.
29.	Dr. Akhtar Naqvi (Phys) Dr. M.M. Nagadi (Phys) Dr. O.S. Al-Amoudi (CE)	Measurement of Chloride Concentration in Silica Fume and Fly Ash Cement Concretes using PGNAATechnique.

	Dr. M. Maslehuddin (RI)	
30.	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.
31.	Dr. Malick Ndiaye (SE)	Locating Facilities with Various Distance Functions.
32.	Dr. Muhammad Al-Arfaj (Che) and Dr. Habib Zughbi (Che)	Development of a Generic Framework for Integrating CFD Models in the Feedback Control System Phase I: Application to Heat Exchanger Inlet Area.
33.	Dr. Habib Zughbi (Che) Dr. Habib Al-Ali (Che)	Investigation of the Hydrodynamics of a Moving Bed Reactor.
34.	Dr. Esam Hamad (Che) Dr. Shaikh Asrof Ali (Chem) Mr. Ruhul Amin (Che) Mr. Kazi Zamshad Sumon (Che)	Screening of Ten Phosphonium Ionic Liquids for Separation Applications in the Oil & Gas Industry.
35.	Dr. Alhassan G. Abdul-Muhmin Mr. Irfan Ilyas (MBA)	Awareness, Adoption and Maturity Level of Customer Relationship Management (CRM) Practices in Saudi Companies.
36.	Dr. Muhammad Asad Sadi Dr. Obaid Al-Abdali (CIM)	An Examination of Saudization Policy in the Service Sector: The Replacement of Foreign Workers with Locals in Saudi Arabia
37.	Dr. Haidar M. Fraihat (Acct & MIS)	A Conceptual IT-Based Model for Collaborative
38.	Dr. Azzedine Zerguine (EE) Dr. Lahouari Cheded (SE) Dr. Asrar Sheikh (EE)	Performance Evaluation of a Soft Decision Based Least Mean Fourth (LMF) Algorithm: Applications to Wireless Communications
39.	Dr. A. Elazouni (CEM) Dr. Abdulaziz Bubshait (CEM) Dr. M. Hassanain (ARE) Dr. M. Deriche (EE) Department.	Utilization of Pattern Recognition Techniques for Progress Monitoring of Construction Projects
40.	Dr. Hussain A. Alzahr (EE) Dr. Mohammad Al-Ghamdi (EE) Mr. Noman Tasadduq (EE)	CMOS Lowpass Filters for Dual Bluetooth/WLAN Direct-Conversion Receiver

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. A. Kharab, Mathematics Dept.	An Introduction to Numerical Methods:

	A MATLAB Approach
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6. SABBATICAL LEAVE PROPOSALS RECEIVED FOR 2004/2005

College/ Department	Name of Faculty	Title of Sabbatical Proposal	Host Institution
College of Industrial 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. S. A. M .Said	Mech Engg. Mech Engg.	Modifications of a 10-TR DX A/C Unit into a 10-TR Chiller
SAB/ 2005-13	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/ 2005-14	Dr. Khalid Sheltami Mr. Mohammad Sammad	Mech Engg. Mech Engg.	Five-Axis Tool Path with Anti Gouging Strategy
SAB/ 2005-15	Dr. Luai Al-Hadhrani	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/ 2005-16	Dr. Khaled Mezghani Mr. Mohammad Abdul Samad	Mech Engg. Mech Engg.	Effect of Mold Temperature on Mechanical Properties of Polyethylene terephthalate
SAB/ 2005-17	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/ 2005-18	Dr. Osman Abdullatif Dr. Mustafa Hariri	Earth Sciences Earth Sciences	Environmental Impacts of Quarrying and Construction works in the Eastern Region, Saudi Arabia
SAB/ 2005-19	Dr. Tarek Sheltami Dr. Ashraf Mohammad Dr. Uthman Baroudi	COE COE COE	Real-Time Applications over Ad Hoc Wireless Networks: Design and Implementation
SAB/ 2005-20	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/ 2005-21	Dr. Ashraf Mohammad Dr. Marwan Abu-Amara Dr. Tarek Sheltami	COE COE COE	Wireless Local Area Networks Integration for Mobile Networks Operators
SAB/ 2005-22	Dr. M. A. Bokhari Dr. H. Al-Attas	Math Math	Interpolating Orthogonal Exponential Polynomials
SAB/ 2005-23	Dr. Suliman Al-Homidan	Math	Semi Definite Programming for Educational Testing Problem
SAB/ 2005-24	Dr. Samir H. Al-Amer	System Engg.	A Gap-Metric Identification Algorithm for Systems Operating in Feedback
SAB/ 2005-25	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/ 2005-26	Dr. A. Elazouni	CEM	Classifying Construction Contractors using Unsupervised Learning Neural

			Networks
SAB/ 2005-27	Dr. Kadir Ertogal	System Engg.	Multi Item Inventory Ordering Problem With Transportation Cost
SAB/ 2005-28	Dr. Abdulwahab S. Alkahtani	Mgt & Mkt	The Creation of Strategic Competitiveness in the New Millennium Internet use by Saudi Small Business
SAB/ 2005-29	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/ 2005-30	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/ 2005-31	Dr. Amine Nehari Talet	MIS	An Empirical Study of Leading Saudi Company
SAB/ 2005-32	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/ 2005-33	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/ 2005-34	Dr. M. A. Abido	Electrical Engg.	Multiobjective Reactive Power Dispatch and Control
SAB/ 2005-35	Dr. A. Mimouni	Math	Some Finiteness Conditions on the Set of t-linked over Rings of an Integral Domain
SAB/ 2005-36	Dr. Muhammad Hawwa Dr. Abdelkader Boucherif	Mech Engg. Mathematics	Wave Screening in Beams on Periodic Elastic Foundations
SAB/ 2005-37	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/ 2005-38	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/ 2005-39	Dr. M. Sadiq Sohail Dr. Nassar Shaikh	Mgt & Mkt MIS	An Analysis of Service Quality in Internet Banking: A Saudi Arabian Perspective
SAB/ 2005-40	Dr. M. Sadiq Sohail	Mgt & Mkt	The Retailing Sector in Saudi Arabia : An Evaluation of Shoppers Attitudes
SAB/ 2005-41	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/ 2005-42	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/ 2005-43	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/ 2005-44	Dr. Osama Ahmed	Electrical Engg.	Non-Stationary Deconvolution for Better Multiples Elimination Using Wavelet and Time-Frequency Transforms

SAB/ 2005-45	Dr. Uthman Baroudi Dr. Ashraf Mahmoud	COE COE	Radio Resources Management and CoS Control for Wireless Integrated Services Networks
SAB/ 2005-46	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/ 2005-47	Dr. Ibrahim Rahimov Dr. Walid Al-Sabah	Math Math	Branching Stochastic Processes with Continuous Stat-Space and Immigration in Varying Environment
SAB/ 2005-48	Dr. Abdelslem Lyaghfour	Math	The Heterogeneous Dam Problem with Dirichlet Boundary Conditions. The N dimensional case
SAB/ 2005-49	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/ 2005-50	Dr. Abdalla Abulkibash Dr. Ali El-Rayyes	Chemistry Chemistry	ZSM-5 Acidity Characterization Using Fluorescence probes
SAB/ 2005-51	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/ 2005-52	Dr. M. A. Gondal Dr. Z. H. Yamani	Physics Physics	Laser Sensor for Detection of Ozone
SAB/ 2005-53	Dr. Uthman Baroudi Mr. Hazen Selmi	COE COE	Adaptive TCP Mechanisms for Wireless Networks
SAB/ 2005-54	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/ 2005-55	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/ 2005-56	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/ 2005-57	Dr. A. H. Bokhari Dr. F. D. Zaman	Math Math	Solution of Some Non-Linear Equations Using Symmetry Methods
SAB/ 2005-58	Dr. Farag Azzedin Dr. Khalid Salah Dr. Malick M. Nadiaye	ICS Dept. ICS ICS	Trust Modeling For Peer-To-Peer Systems: Issues and Approaches
SAB/ 2005-59	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/ 2005-60	Dr. Aimen El-Maleh Dr. Sadiq Sait	COE COE	Multi-objective Finite State Machine Encoding using Non-Destructive Evolutionary Algorithms
SAB/ 2005-61	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 JANUARY, 2005

College of Engineering

Civil Engineering

1. "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.**, Journal of Engineering Mechanics, ASCE, Vol. 131, No. 1, January 2005, pp. 12-22.
2. "Tire Condition and Drivers' Practice in Maintaining Tires in Saudi Arabia," **Ratrout, N.T.**, Accident Analysis & Prevention, Vol. 37, Issue 1, 2005.
3. "Corrosion Study of Concrete Using PGNAA Technique," **Naqvi, A.A., Nagadi, M.M., and Al-Amoudi, O.S.B.**, Materials Science Forum, Vols. 480-481, 2005, pp. 33-42.
4. "Photovoltaic Technology of Electricity Generation for Desert Camping," **Shafiqur Rehman, Shash, A.A., and Al-Amoudi, O.S.B.**, American Journal of Environmental Sciences, Vol. 1, No. 1, 2005, pp. 50-58.
5. "The Influential Factors on the Permeability of Concrete," **Al-Amoudi, O.S.B., Siddiq, W.M.E., and Maslehuddin, M.**, Building Technology, Issue 6, April 2005, pp. 62-68 (in Arabic).
6. "Evaluation of Thermal Performance of Different Saudi Bricks," **Bader, M.A., Ahmad, A., Shafiqur Rahman, Al-Amoudi, O.S.B., Shaahid, S., and Hafieche, B.**, Civil Engineering Journal, Saudi Society of Civil Engineering, King Abdulaziz University, Jeddah, Issue No. 1, April 2005 (Rabi I, 1426H), pp. 10-15.

Chemical Engineering

1. "Kinetics of Desorption of 1,3 di-isopropyl benzene and 1,3,5 tri-isopropyl benzene. I. Diffusion in Y Zeolite Crystals by Zero Length Column Method", **Zaman, Sharif F., Loughlin, Kevin F., and Al-Khattaf, Sulaiman S.**, Ind. Eng. Chem. Res., 44(7), 2027-2035, 2005.
2. "Adsorption of Methane, Ethane and Ethylene on ETS-10 Zeolite", **Nadhir A. Al-Baghli and Kevin F. Loughlin**, Journal Chemical Engineering Data, 50(3), 843-848 2005.
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. 225, Issue 1, pp. 117- 124 (2005)
4. "Perfluorinated ionomer-boron phosphate composite membranes for DMFC Applications", **S.M.J. Zaidi, S.U. Rahman**, Journal of. Electrochemical Society, vol. 152, no. 8, (2005)

5. "Preparation and Characterization of composite membranes using blends of SPEEK/PBI with boron phosphate", **S.M.J. Zaidi**, Electrochimica Acta, 2005 (in Press).
6. "Proton Conducting Composites of Heteropolyacids loaded onto MCM-41", **S.M.J. Zaidi, M.I. Ahmed, S. Ahmed**, Journal of Power Sources, 2005 (in press)
7. "Novel SPEEK/Heteropolyacids loaded Y-zeolite Composite Membranes for Medium Temperature Fuel cell Applications", **S.M.J. Zaidi*, M.I.Ahmed, S.U. Rahman**, Desalination, 2005 (in press).
8. "Thiophene Hydrodesulfurization Over Noble Metal Modified Co Clay Catalysts". **M. M. Hossain , M. A. Al-Saleh , M. A. Shalabi, T. Kimura and T. Inui**, Applied Catalysis A:General, 274 (2004) 43-48.
9. "Pd-Rh Promoted Co/HPS catalysts for Heavy Oil Upgrading", **M. M. Hossain , M. A. Al-Saleh , M. A. Shalabi, T. Kimura and T. Inu**, Applied Catalysis A:General 278 (2004) 65-71.
10. "Influence of Epolene G-3003 as a Coupling Agent on the Mechanical Behavior of Palm Fiber-Polypropylene Composites", **Kahraman, R., Abbasi, S. and Abu-Sharkh, B.**, International Journal of Polymeric Materials, 54, 1-21 (2005).
11. "Moisture Diffusion into Aluminum Powder Filled Epoxy Adhesive in NaCl Solutions", **Kahraman, R. and Al-Harthi, M.**, International Journal of Adhesion & Adhesives, 25, 337-341 (2005).
12. "Influence of hydrophobe content and salt concentration on dilute solution behavior of hydrophobically modified ionic polymers from diallylammonium salts/sulfur dioxide cyclocopolymerization: light scattering and fluorescence spectroscopy", **M. Sayem Mozumder, R. Alnaizy, Yunusa Umarb, Sk. Asrof Alib, B.F. Abu-Sharkha**, European Polymer Journal, (in press).
13. "Influence of Hydrophobe Content on the Solution Rheology of Hydrophobically Modified terpolymer of SO₂,N,N-diallyl-N-carboethoxymethylammonium chloride", **Alnaizy, R.**, European Polymer Journal, (in press).
14. "A Study on Durability of Metal Joints Bonded with Aluminum Powder Filled Epoxy Adhesive", **I.A. Hussein, M. Sayem Mozumder, B.F. Abu-Sharkh, Sk. Asrof Ali, and R. Kahraman**, Materials Science and Technology, 21:2, 259-262 (2005)."

Electrical Engineering

1. "Finite Element Modeling of Magnetostrictive Smart Structure", **J.M. Bakhshwain, M. Sunar, and S.J. Hyder**, AJSE, Vol.29, Number 1C, pp. 125-138, 2005.
2. "A translinear circuit for sinusoidal frequency division", **M.T. Abuelma'atti**, IEEE Transactions on Instrumentation and Measurement, Vol. 54, pp.10-14, 2005.
3. "Large-signal performance of the serially cascaded electroabsorption modulator", **M.T. Abuelma'atti**, Fiber and Integrated Optics, Vol. 24, pp. 129-145, 2005.

4. "Real-Time Performance Evaluation of a Genetic Algorithm Based Fuzzy Logic Controller for IPM Motor Drives" **M. Nasir Uddin, M. A. Abido, and M. A. Rahman**, IEEE Transactions on Industry Applications, Vol. 41, No. 1, , pp. 246-252, January/February 2005.
5. "Analysis and assessment of STATCOM-Based damping stabilizers for power system stability enhancement" **M. A. Abido**, Electric Power Systems Research, Vol. 73, No. 2, pp. 177-185, February 2005.
6. "Performance of Compact Integratable Broadband Antenna", **Sheikh S.I., Guha D. and Siddique J. Y.**, Electromagnetics, Vol 25, No. 4, May 2005.
7. "A Robust TCSC Controller Design for Enhancing Power System Damping", **A.H.M.A.Rahim, E.P. Nowicki and D. Westwick**, Mediterranean Journal of Measurement and Control, Vol.1, No 1, pp.1-7, 2005.
8. "A Robust Damping Controller for an HV-ACDC System Using a Loop-shaping Procedure", **A.H.M.A.Rahim and E.P.Nowicki**, Journal of Electrical Engineering, Vol. 56, No 1-2, pp.15-20, 2005.
9. "Power System Transient Stability Enhancement by STATCOM with Nonlinear H_{∞} Stabilizer", **Al-Baiyat, S. A.**, Electric Power Systems Research Vol. 73, No. 1, pp. 43 – 52, January 2005.
10. "Design of a Robust SVC Damping Controller Using Nonlinear H_{∞} Technique", **Al-Baiyat, S. A.**, Arabian Journal for Science and Engineering Vol 30. No. 1B, pp. 65-80, April 2005.

Mechanical Engineering

1. "Laser treatment of a carbon/carbon reinforced composite", **Al-Sulaiman F. and Yilbas B.S.**, Lasers in Engineering, v 15, n 1-2, pp. 119-127, 2005.
2. " A turbulent submerged swirling jet expansion in still air and entropy generation", **Shuja S.Z. and Yilbas B.S.**, Exergy, The International Journal, in print, 2004.
3. "HVOF coating and laser treatment: three-point bending tests", **Yilbas B.S., Arif A.F.M. and M.A. Gondal**, Journal of Material Processing Technology, in press, Vol. 164-165, pp. 954-957,2005.
4. "Laser heating and surface evaporation", **Mansoor S., Yilbas B.S. and S.Z. Shuja**, Int. Comm. Heat and Mass Transfer, Vol. 32, pp. 822-830, 2005.
5. "A Numerical Study of Heat and Momentum Transfer in Channels with Wavy Walls", **Bahaidarah, H. M. S., Anand, N.K. and Chen, H.C.**, Numerical Heat Transfer

Part-A, Vol. 47, Issue 5, 2005 pp. 417-439

Petroleum Engineering

1. “Alkaline Surfactant polymer formulation for Carbonate Reservoirs,” **Al-Hashim, H. S., Obiora, V., Al-Yousef, H., Fernandez, F. and Nofal, W.**, Petroleum Science and Technology, Vol. 23, (2005), pp. 723-746.

College of Sciences

Chemistry

1. “Sequential Injection Kinetic Method for the Assay of Aspirin in Drug Formulations”, **Salah M. Sultan, Abubakr M. Idris and Kamal E. E. Ibrahim**, Talanta, 2005.
2. “Differential Electrolytic Potentiometric Determination of Some Amino Acids in Dosage Forms”, **S. M. Ghannam, A.M. S. Abulkibash and A. Al-Olyan**, Journal of AOAC international, Vol. 87, No 3, 2004, 671.
3. “Oxidation of Diselenide bond with sodiumtetrachloroaurate(III): Significance in Chemotherapy”, **A. A. Isab and W. Ashraf**, Inorg. Chem. Comm., 8, 358-360 (2005).
4. “Solution and Solid State NMR Studies of some Selenium Analogues of Auranofin (an Anti-Arthritic Gold Drug)”, **M. I. M. Wazeer, A. A. Isab, and S. Ahmad**, J. Coord. Chem., 58, 391-398 (2005).
5. “Complexations of Zinc(II), Cadmium(II) and Mercury(II) with Thiourea and Selenourea: ^1H , ^{13}C , ^{15}N , ^{77}Se and ^{113}Cd Solution and Solid state NMR studies”, **A. A. Isab and M. I. M. Wazeer**, J. Coord. Chem., 58, 529-537 (2005).
6. “Normal Coordinate Analyses and Barrier to Internal Rotation of Nitroso- and Nitroazides”, **H.M. Badawi, W. Förner and K.S. Al-Ghamdi**, Spectrochimica Acta A60, 941-949 (2004).
7. “DFT-B3LYP Versus MP2, MP3 and MP4 Calculations of the Structural Stability of Azidoketene $\text{O}=\text{C}=\text{CH}-\text{NNN}$ ”, **H.M. Badawi, W. Förner and A.A. Al-Saadi**, Journal of Molecular Structure (Theochem) 712, 131-138 (2005).
8. “The Chemistry of α,β -Unsaturated Sulfoxides and Sulfones: An Update”, **I. Forristal**, J. Sulfur Chem., 26, 163–195, (2005).
9. “Crystal structure of bis (3,4,5-tetrahydropyrimidine-2(1H)-thione)gold(I) chloride, $[\text{Au}(\text{C}_4\text{H}_8\text{N}_2\text{S})_2]\text{Cl}$ ” **M. Fettouhi, A. A. Isab, M. I. M. Wazeer**, Z. Kristallogr., NCS, 219, 391-392 (2004).

10. "Gold(I) complexes with selenone and triphenylphosphine as ligands" **A. A. Isab, S. Ahmad and A. P. Arnold**, Transition Metal Chem., 29, 870-873 (2004).
11. "Exchange Reactions between Albumin-Au(I)-PEt₃ Complex and Me₃PAuCl or *i*Pr₃PAuCl: ³¹P NMR Spectroscopic Studies" **A. A. Isab, C. F. Shaw III, A. Munoz and J. D. Hoeschele**, Inorg. Reaction Mechanisms., 5, 109-116 (2004).
12. "Theoretical Vibrational Spectra and Analyses of Isocyanatokenene O=C=CH-N=C=O" **H. M. Badawi and A. Al-Saadi**, J. Mol. Struct. Theochem, Vol. 676, 35(2004).
13. "C-S Barrier and Vibrational Analyses of (Halocarbonyl)sulphenyl Halides XCO-SX (X = F, Cl and Br)", **H. M. Badawi**, Spectrochim. Acta, Vol. 60A, 2573(2004).
14. "Three-Fold Barrier and Normal Coordinate Analyses of (Trihalo-methyl)sulphenyl Halides X₃C-SX (X = F AND Cl)". **H. M. Badawi**, Spectrochim. Acta Part A, Vol. 61A, 967(2005).
15. "Potential Functions of N-C and C-S internal rotations and Normal Coordinate Analyses of Carbamothioic acid NH₂-CO-SCI". **H. M. Badawi**, J. Mol. Struct. Theochem, Vol. 715, 33(2005).
16. "Conformational Stability and Vibrational Analyses of Vinyl diazene CH₂=CH-N=NH and Vinyl imine CH₂=CH-CH=NH ". **H. M. Badawi**, J. Mol. Struct. Theochem, Vol. 715, 39(2005).
17. "The Effect of N-(4-n-butyl benzilidine) 4-amino 2,2,6,6-tetramethyl Piperidine 1-oxide on the nematic-to-isotropic phase transition of 4-n-pentyl-4'-cyanobiphenyl", **G. A. Oweimreen and J. S. Hwang**, Thermochimica Acta 421(1-2), 225 (2004).
18. "Determination of cetirizine dihydrochloride, related impurities and preservatives in oral solution and tablet dosage forms using HPLC", **Jaber, A.M.Y. Al Sherife, H. A., Al Omari, M. M., Badwan, A. A.**, J. Pharm. Biomed. Anal., 36(2004), pp. 341-350.
19. "Studies on phenol permeation through supported liquid membranes containing functionalized polyorganosiloxanes", **Jaber, A.M.Y., Ali, S.A. and Yahaya, G.O.**, Journal of Membrane Science, 250(2005), pp. 85-94.
20. "Sequential Injection Kinetic Spectrophotometric Method for the Assay of Paracetamol in Drug Formulations", **Salah M. Sultan, Abubakr M. Idris and Kamal E. E. Ibrahim**, Talanta, 2005.
21. "Crystal structure of tetrakis(isopropylidiphenylphosphine)di(μ-iodo)dicopper(I), Cu₂I₂(PC₁₇H₁₇)₄", **M. Fettouhi and Z. S. Seddigi**, Zeitschrift für Kristallographie - New Crystal Structure.

22. ³¹P CPMAS NMR Studies of Some mono- and di-nuclear complexes of copper(I)iodide and complexes", **Zaki S. Seddigi and Mohammed I. M. Wazeer**, The Canadian Journal of Analytical Sciences and Spectroscopy.
23. "Theoretical Vibrational Spectra of Organic Ring Compounds Compared to Experiment. Proceedings of the 4th Congress of the International Society for Theoretical Chemical Physics held in Marly-le-Roi, France, July 9-16, 2002, **W. Förner**, International Journal of Quantum Chemistry 99, 533-555 (2004).

Earth Sciences

1. "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 162(2005): 805-826.
2. "Is the optical image of a non-Lambertian fractal surface fractal?", **Korvin, G.** IEEE Geosci. Remote Sensing Letters (2005) (In Print)
3. "New inequalities involving the Zeta function", **Cerone, P., Chaudhury, M. A., Korvin, G. and Qadir, A.** Journal of Inequalities in Pure and Applied Mathematics (2005) (In Print)
4. "Lacunarity for deterministic or stochastic fractal patterns: Fundamentals", **Arizabalo, R. D., Oleschko, K., and Korvin, G.** Revista Mexicana de Física (2005) (In Print)
5. "Wavelet and Fractal Methods in Science of Engineering, Part II.", **Ed. by A. H. Siddiqi, A.H., Korvin, G., Mosco, U., Dahlke, S., and Frieden, W.** Theme Issue of The Arabian Journal for Science and Engineering 29 (2004), Number 2C, 167 pp.
6. "Estimation of Spilled Hydrocarbon Volume: The State-of-the Art. **Al-Suwaiyan, M., Aiban, S. A., Ishaq, A. M., Al-Malack, M. H., and Hussain, M.** Environmental Technology 25(2004):1077-1090.
7. "Using multivariate factor analysis to assess surface/logged water quality and source of contamination at a large, irrigation project at Al Fahdli, Esatern Province, Saudi Arabia", **Ahmed, S.M., Hussain, M., Abderrahman, W.** Bulletin of Engineering Geology and the Environment. (In Print)
8. "Formation and mineral chemistry of a calcic skarn from Al-Madhiq, SW Saudi Arabia", **Ahmed, Z., and Hariri, M. M.**, Chemie der Erde/ Geochemistry, Elsevier, 65 (2005). (In Print; published on-line December 29, 2004).

Mathematics

1. "A Regularity Result for the Heterogeneous Evolution Dam Problem", **A. Lyaghfour**, Zeitschrift für Analysis und ihre Anwendungen, 24, no.1, (2005), 149-166.

2. "On the Continuity of the Free Boundary in Problems of type $\text{div}(a(x) \text{ grad } u) = -(h(x)X(u))_{x_1}$ ", **S. Challal** and **A. Lyaghfour**, Non-linear Analysis: Theory, Methods, and Applications, 62, no.2, (2005), 283-300.
3. "Integral domains in which each ideal is a $\$w\$$ -ideal", **A. Mimouni**, Communications in Algebra, 33, (2005), 1345-1355.
4. "Semistar-operations of finite character on integral domains ", **A. Mimouni**, Journal of Pure and Applied Algebra, 200, no.1-2, (2005), 37-50.
5. "Some results on common fixed points and best approximation", **A.R. Khan**, **A. Latif**, **A.Bano**, and **N. Hussain**, Zeitschrift fur Analysis und ihre Anwendungen, 36, no.1, (2005), 33-38.
6. "Asymptotic behavior of discrete solutions to impulsive logistic equations", **Akca H.**, **E. Al-Zahrani** and **Covachev V.**, Electronic Journal of Differential Equations, 12, (2005).
7. "Language and Mathematics: A mediational approach to bilingual Arabs ", **B. Yushau** and **M.A. Bokhari**, International Journal for Mathematics Teaching and Learning, 1, no. 18, (2005).
8. "Direct and inverse acoustic scattering problem over a two-part impedance ground in a moving fluid by using Wiener-Hopf technique ", **F.D. Zaman** and **K. Masood**, Journal of Technical Physics, 46, no.1, (2005), 23-35.
9. "On the Linear Weak Topology and Dual Pairings over Rings", **Jawad Y. Abuihlail**, Topology and its Applications, 149 no.1-3, (2005), 161-175.
10. "Existence Results for Stampacchia and Minty type Implicit Variational Inequalities with Multivalued Maps", **L.J. Lin**, **M.F. Yang**, **Q.H. Ansari**, and **G. Kassay**, Nonlinear Analysis, 61, no.1-2, 1-19.
11. "Some Applications of MS Excel in Doing Mathematics", **M. El-Gebeily** and **B. Yushau**, Learning and Teaching Mathematics, (2005), 31-34.
12. "Numerical Solutions of Linear Ill-Posed Problems", **M. Iqbal**, Journal of Integral Transforms and Special Functions, 16, no.1, (2005), 29-37..
13. "On Endomorphisms of Semilattices of Groups", **M. S. Samman** and **J. D. P. Meldrum**, Algebra Colloquium, 12, no.1, (2005), 93-100.
14. "New Distortion Measure in Image Processing", **M.K. Ahmad** and **A.H. Siddiqi**, Journal of Sampling Theory in Signal and Image Processing, 4, (2005), 151-167.
15. "Proximal Point Algorithm for Generalization Multivalued Non-Linear Quasi-Variational like Inclusions in Banach Spaces", **R. Ahmad**, **A. H. Siddiqi**, and **Z. Khan**, Applied Mathematics and Computation, 163, (2005), 295-308.

16. "Wavelet Transform of Meteorological Parameters and Gravity Waves", **Z. Can, Z. Aslan, O. Oguz and A.H. Siddiqi**, Annales Geophysics, 23, (2005), 659-663.
17. "Parallel Algorithms for Quazi-Variational Inequality Arising in Type-II Superconductivity model", **K. Furati and A.H. Siddiqi**, Journal of Numerical Functional Analysis and Optimization, 26, no.2, (2005), 1-12.
18. "Fast Algorithm for the Bean Critical-State model for Superconductivity", **K.M. Furati and A.H. Siddiqi**, Numerical Functional Analysis and optimization, 26, no.2, (2005), 12-28.
19. "Parameterization of Discrete Wavelet Transform: an Image Processing Application for multimedia Copyright Security Enhancement Using Wavelet Marketing", **M.A. Suhail and A.H. Siddiqi**, Journal of Sampling Theory in Signal and Image Processing, 4, no.1, (2005), 57-72.
20. "Unboundedness for the Euler-Bernoulli beam equation with a fractional boundary dissipation", **S. Labidi and N.-E. Tatar**, Applied Mathematics and Computation, 161, no.3, (2005), 697-706.
21. "Permanence, extinction and global asymptotic stability in a stage structured system with distributed delays", **S. Liu, M. Kouche and N.E. Tatar**, Journal of Mathematical Analysis and Applications, 301, (2005), 187-207.
22. "Local Power For Combining Independent Tests in The Presence of Nuisance Parameters For The Logistic Distribution", **W . Abu-Dayyeh, Z. Al-Rawi, and M . Al-Momani**, Journal of Modern Applied Statistical Methods, 4, 1, (2005).
23. "The Admissibility of the LRT for the Exponential Family Model", **W. Abu-Dayyeh and K. Madan**, Applied Mathematics and Computation, 160, no.2, (2005), 303-308.

Physics

1. "A Systematic Approach to Nuclear Microscopy of Water Trees for a Large Number of Field-aged HV Cable Samples", **M. Ahmed, M. A Garwan, M. A. Al-Ohali**, R. Minqin, I. Rajta, I., F. Watt, Z. Al-Hamouz, and K. Al-Soufi. European Transactions on Electrical Power (ETEP), 15, no. 1-12, 202005.
2. "How Good are Electrical Diagnostic Tests to Predict Water Trees in HV Cables—An Evaluation using Optical Microscopy", **M. Ahmed, M. Garwan, M. A. Al-Ohali**, Z. Al-Hamouz and K. Soufi. Journal of Electrical Engineering, 56, no. 1-2, 202005.
3. "Applications of KFUPM Micro-PIXE Facility for Analysis of Geological Samples", **M. Ahmed**, Journal of Radioanalytical and Nuclear Chemistry, 265, no. 1, 202005.
4. "Improving electric load forecasts using network committees", **Abdel-Aal, R. E.**, Electric Power Systems Research, v. 74, pp. 83–94 (202005).

5. "Significance of pH Measurements in Photocatalytic Splitting of Water by 355 nm UV Laser", A. Hameed, **Gondal, M. A., Z. H. Yamani** and A.H. Yahya J. Molecular Catalysis A, **227**, 241 (202005)
6. "Hvof Coating and Laser Treatment: Three Point Bending Test", J. Materials Processing, B.S. Yilbas, A.F. M. Arif and **M. A. Gondal**, Technology Volumes 164-165, 954. (202005).
7. "Production of Hydrogen-rich Syngas using p-type NiO catalyst: A Laser-based Photocatalytic Approach", A. Hameed and **M. A Gondal**, J. Molecular Catalysis A Vol 233, 35. (202005).
8. "Significance of pH Measurements in Photocatalytic Splitting of Water by 355 nm UV Laser", A. Hameed, **Gondal, M. A., Z. H. Yamani** and A.H. Yahya , J. Molecular Catalysis A, V 227, 241. (202005).
9. "Effect Of Dissolved Metal Ions On Laser Induced Photocatalytic Splitting Of Water Over WO_3 ", A. Hameed, **Gondal, M. A., Z. H.Yamani** and A. Al-Suwaiyan, Energy Sources (accepted and in press) (202005).
10. "Remote Fingerprinting of Crude Oil Using Normalized Time-resolved Fluorescence Spectra", **E. Hegazi**, A. Hamdan, and J. Mastromarino, AJSE, vol 31, pp 1-10 (April 202005).
11. "Deterioration condition of high-voltage electrical cables using fluorescence signals", **E. Hegazi**, ACW. vol 21 issue 6, pp 26-27 (202005).
12. "*Nuclear Track Detectors and Their Applications*", F.Abu-Jarad, **M.I. Al-Jarallah**, Atom and Development, pp. 26-37, vol. 17, No.1(202005).
13. "Radioactivity of Thorium in Gas and Kerosene Mantles" in Arabic, **Al-Jarllah, M.I.**, Atom and Development, Vol. 16, No.3 pp 45-52, Dec. (2004).
14. "Copolymerization of styrene and methacrylates in the presence of catalytic chain transfer agents (CCTAs)", M. S. Hussain, **M. A. Khan**, S. Ahmad, Arabian Journal of Science & Engineering (AJSE), 30-1A, 131-144, (202005).
15. "X-ray photoelectron spectroscopy of $\text{ceo}_2\text{-na}_2\text{o-sio}_2$ glasses", **Mekki A.**, Journal of Electron Spectroscopy and Related Phenomena, 142 (1): 75-81 (Jan 202005).
16. "Some new mathematical results obtained using Closure," H. A. Mavromatis, Tr. J. of Phys. 28, pp. 277-282 (2004).
17. "Antithrombotic Properties of the Thromboxane A_2 /Endoperoxide Receptor Antagonist, S18886, on Prevention of Platelet-Dependent Cyclic Flow Reductions", **Nabil Maalej**, Hashim Osman, Dhanansayan Shanmuganayagam,

- Ronald J. Shebuski, John D. Folts, J Cardiovasc Pharmacol. Volume 45(5): 389-395, (202005).
18. "Simple Procedures For Image Quality Assurance and Dose Reduction in Mammography". **Nabil Maalej**, Accepted for publication in International. J. Scientific Research, (202005).
 19. "Corrosion Study of Concrete Using PGNAA Technique", **Naqvi A. A., M. M. Nagadi** and O. S. B Al-Amoudi, Materials Science Forum , Vol. 480-481(202005) pp. 33-42.
 20. "Use of $^7\text{Li}(p,n)$ reaction as a neutron source in PGNAA setup", **Naqvi A. A.** and **M. M. Nagadi**, Applied Radiation and Isotopes, Vol. 62/3(202005) pp.411-418.
 21. "Elemental analysis of concrete samples using an accelerator-based PGNAA setup", **Naqvi A. A., M. M. Nagadi** and O. S. B Al-Amoudi. Nuclear Instruments & Methods in Physics Research B, 225/3(2004) pp.331-338.
 22. "Search of a prompt gamma ray for chlorine analysis in a portland cement sample". **Naqvi, A. A. M. M. Nagadi** , S. Kidwai, Khateeb-ur-Rehman and M. Maslehuddin Nuclear Instruments & Methods in Physics Research A 533/3 (2004) pp. 591-597.
 23. "Performance comparison of an ^{241}Am -Be neutron source based PGNAA setups with the KFUPM PGNAA setup", **Naqvi A. A** and **M. M. Nagadi**, J. Rad. Anal. Chem. Vol. 260, No. 3 (2004) pp.641-646.
 24. "Validity test of design calculations of a PGNAA setup", **Naqvi A. A** and **M.A.Garwan**, Nuclear Instruments & Methods in Physics Research B, Vol. 215/1-2. (2004) pp. 283-291
 25. "Verification of design calculations of a PGNAA setup using Nuclear Track Detectors", **Naqvi A. A., Fazal-ur-Rehman , M. M. Nagadi**, M. Maslehuddin, **Khateeb-ur-Rehman** and **S. Kidwai**, Radiation Measurements, Vol 38/1(2004), pp 37-41.
 26. "Irradiation-induced silicide formation in the ion beam-mixed Au/Si(100) system at room temperature" R. Khalfaoui, C. Benazzou, A. Guittoum, **N.Tabet** and S. Tobbeche, Vacuum 78, 2-4 , (202005) 223.
 27. "CO-sensing properties of undoped and doped tin oxide thin films prepared by electron beam evaporation. **S M A Durrani**, **E E Khawaja**, and **M F Al-Kuhaili**, Talanta, Vol. 65, pp 1162-1167 (202005).
 28. "Clean Production of Hydrogen Via Laser-Induced Methane Conversion", **Zain H. Yamani**, Energy Sources, **27**, 661 (202005)

Information & Computer Science

1. "Artificial Neural System for Packet Filtering", **M.I. Buhari, M.H. Habaebi, B.M. Ali**, Journal of Computer Science 1(2): 259-269, 2005.
2. "Computing Optimized Curves with NURBS Using Evolutionary Intelligence", **Sarfraz, M., Raza, S.A. and Baig, M.H.**, *Lecture Notes in Computer Science Vol. 3480: Computational Science and Its Applications*, 806 – 815, 2005.
3. "Modeling and Analysis of Application Throughput in Gigabit Networks", **K. Salah**, International Journal of Computers and Their Applications 12(1), 44 – 45, 2005.
4. "On V&V of Web Service Oriented Architectures", **Abdelkader Dekdouk, Tarek H. El-Basuny**, Proceedings of the Second ACM/SIGART/SIGMIS International Conference on Intelligent Computing and Information Systems ISBN 977-237-172-3, March 5-7, 2005, Ain Shams University, Egypt, pp. 536-542 <http://www.icicis.net/>
5. "Multi-Agent-Based Natural Language AV Interface: Its Design, Implementation and Evaluation", **Tarek H. El-Basuny, Makoto Amamiya**, The International Arab Journal of Information Technology, to appear in Vol. 3, No. 4, October 2006 issue. www.iajit.org
6. "Performance Evaluation of a QoS-Aware Mechanism for Polling-Based High-Speed Network Interfaces" **Tarek Helmy, Salman Al-Qahtant**, International Journal of computer science, ISSN 1549-3636 © Science Publications, Vol. 1 (4): 460-469, 2005. <http://www.scipub.org>
7. "Adaptive Fuzzy Logic Based Framework For Software Development Effort Prediction," **Ahmed M., Saliu, M., and Al-Ghamdi J., (2005)**, Journal of Information and Software Technology (IST), Vol. 47/1 pp 31-48, January.

Systems Engineering Department

1. "Integrating Quality and Maintenance Decisions in a Production-Inventory Model for Deteriorating Items" H.K. Alfares, S.N. Khursheed, and S.M. Noman, International Journal of Production Research, Vol. 43, No. 5, 2005, 899-911

College of Industrial Management

Department of Management & Marketing

1. "Saudi consumers' perception of foreign products". Sohail, Sadiq. M. Journal of International Business and Entrepreneurship, Vol. 11 No.1, pp 93-106, 2005.

2. "Malaysian Consumers' Evaluation of Products Made in Germany". Sohail, Sadiq. M . Asia Pacific Journal of Marketing and Logistics, Vol 17 Number 1 pp 89-105, 2005.
3. 'Measuring Service Quality in Restaurants: An Asia Pacific Experience'. Sohail, Sadiq. M. Journal of International Marketing and Marketing Research, Vol. 30 No 1, 2005 pp.3-13, 2005.
4. 'TQM Practices and Organizational Performances in the Manufacturing Sector: Evidence from a Developing Nation'. **Sohail, Sadiq. M** and Buraey, Mohammad, International Journal Business Performance Management, Vol. 7, No. 2, pp 144-157, 2005.
5. 'TQM Practices and Organizational Performances in the Manufacturing Sector: Evidence from a Developing Nation'. **Al-Buraey, Muhammad A.** & Sohail, Sadiq M., International Journal Business Performance Management, Vol. 7, No. 2, pp 144-157, 2005.
6. "Measuring Service Quality at King Fahd International Airport", **Sadiq Sohail and Abdulwahab Saeed Al-Gahtani**, International Journal of Service and Standards, Vol. 1, No. 4, 2005.

College of Environmental Design**Architectural Engineering Department**

1. "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.
2. "Types and Working Mechanisms of Building Thermal Insulation Materials", **Al-Homoud, M. S.**, 2005 Building Technology Journal, Vol. 1, No. 6 (April), pp. 28-38. (In Arabic)
3. "An Approach to Assess Fire Safety Requirements in Library Facilities", **Hassanain, M. and Alashwal, N.**, Facilities, Vol. 23, No. 5/6, 2005, pp 239-252.
4. "A Framework Model for Outsourcing Asset Management Services", **Hassanain, M. and Al-Saadi, S.**, Facilities, Vol. 23, No. 1/2, 2005, pp 73-81.

9. PUBLICATIONS IN CONFERENCE PROCEEDINGS REPORTED AFTER JANUARY, 2005

College of Engineering

Civil Engineering

1. "Influence of Polymer Type and Structure on Polymer Modified Asphalt Concrete Mix," **Husain, I.A., Al-Abdul Wahhab, H.I., and Iqbal, M.H.**, paper presented at the 21st Annual Meeting of the Polymer Processing Society (PPS-21), June 2005, Germany.
2. "Rheological Investigation of the Influence of Acrylate Polymers on the Modification of Asphalt," **Husain, I.A., Al-Abdul Wahhab, H.I., and Iqbal, M.H.**, paper presented at the 21st Annual Meeting of the Polymer Processing Society (PPS-21), June 2005, Germany.
3. "Long-Term Performance of Epoxy-Coated Steel Bars in Chloride-Contaminated Concrete," **Al-Amoudi, O.S.B., Maslehuddin, M., and Al-Idi, S.H.**, 6th International Congress on Global Construction: Ultimate Concrete Opportunities, Dundee, Scotland, July 5 to 7, 2005, accepted for presentation and publication.
4. "Characteristics of Vehicle Tire Market in the Kingdom of Saudi Arabia," **Ratrout, N., Al-Ofi, K. and Al-Abdul Wahhab, H.**, Al-Azhar Engineering 8th International Conference, Vol. 8, No. 1, January 2005.
5. "Treatment of Mixed Industrial Wastewater Employing Photocatalysis," **Vohra, M.S. and Malick, S.A.**, The 8th International Conference on Solar Energy and Applied Photochemistry [SOLAR'05], Luxor, February 20-25, 2005.
6. "Performance of Immersed Membrane Activated Sludge Process," **Al-Malack, M.H.**, accepted in the ADST 2005, International Conference on Desalination Technologies: Outlook, Challenges, and Opportunities, held in Sharm El-Sheikh, Egypt, March 18-21, 2005.
7. "The Role of Counseling Centers in Providing Psychological, Social and Academic Services: The KFUPM Experience," **Aiban, S.A., Moftah A.A., and Al-Mogren A.Y.**, The First Gulf Conference on Social and Psychological Services and Education, Kuwait, April 2-4, 2005 (in Arabic).
8. "Self-Reported Attributes of Traffic Accident Involvement by Female Teachers Working in Rural Areas in Saudi Arabia," **Al-Ahmadi, H.M., Al-Sughaiyer, M., Ratrout, N.T., Al-Ofi, K.A., Mutlak, H. and Abdy, Z.R.**, Eleventh International Conference on Urban Transport and the Environment in the 21st Century, (Urban Transport 2005), organized by Wessex Institute of Technology, UK, 12-14 April 2005, Algarve, Portugal.

9. "Failure of Rock Anchors along the Road-Cut Slopes of Dhila Descent, Saudi Arabia," **Al-Shayea, N.**, Proceedings of International Conference on Problematic Soils (GEOPROB 2005), Eastern Mediterranean University, Famagusta, N. Cyprus, 25-27 May 2005.
10. "Evaluation of Liquefaction Potential at a Petroleum Site, Jeddah, Saudi Arabia," **Al-Shayea, N.**, Proceedings of the International Conference on Problematic Soils (GEOPROB 2005), Eastern Mediterranean University, Famagusta, N. Cyprus, 25-27 May 2005.
11. "Swelling Characteristics of Al-Khobar Marl, Eastern Saudi Arabia," **Aiban, S.A.**, Proceedings of International Conference on Problematic Soils, Eastern Mediterranean University, Famagusta, N. Cyprus, 25-27 May 2005.

Chemical Engineering

1. "Explicit and Implicit Incentives to Enhance Technology & Promotion Transfer from Japan to Saudi Arabia", **Inui, T.**, 2nd National Symposium on Technology Development and Transfer, Radisson SAS Hotel, Riyadh, Saudi Arabia, May 8, 2005.
2. "Proton conductivity studies of novel composite membranes for medium temperature fuel cells", International conference on membrane and membrane processes (ICM 2005), **S.M.J. Zaidi***, **M.I. Ahmed**, **S.U. Rahman**, Soul, Korea, August 21-26, 2005
3. "Perfluorinated ionomer-boron phosphate composite membranes for PEM Fuel Cell Applications", **S.M.J.Zaidi**, **S.U. Rahman**, 205th Meeting of the Electrochemical Society, San Antonio, USA, May 9-13, 2004.
4. "Impact of membrane materials on the performance of fuel cells", **S. M. J. Zaidi**, Proc: International Mechanical Engineering Conference, IMEC-2004, December 5-8, 2004, p598-615.
5. "Fuel Cells: Trends and directions for Cleaner Energy Production", **M.I. Ahmed**, **A.Nafees**, **S.M.J. Zaidi***, **S.U. Rahman**, Proc: International Mechanical Engineering Conference, IMEC-2004, December 5-8, 2004, p88-102.
6. "The promise of fuel cell powered vehicles", **A. Nafees**, **M.I. Ahmed** **S.M.J. Zaidi***, **S.U. Rahman**, Proc: International Mechanical Engineering Conference, IMEC-2004, December 5-8, 2004, p88-102.
7. "Characterization and Proton conductivity measurements of solid USY-zeolite loaded with Heteropolyacids", **S.M.J.Zaidi**, **M.I. Ahmed**, **S.Ahmed**, Proc: International conference on Electrochemical Power Systems, Hyderabad, India, December 20-21.
8. "Recent Progress in Composite Membranes for Direct Methanol Fuel Cell

- Applications", **S.M.J. Zaidi*, M.I. Ahmed, S.U. Rahman**, Proc: 6th International Conference on Chemistry in Industry, Bahrain, September 27-29, 2004.
9. "Approaches to solve problem of co poisoning in hydrocarbon based fuel cell system", **S.M.J. Zaidi*, M.I. Ahmed, S.U. Rahman**, Proc: 6th International Conference on Chemistry in Industry, Bahrain, September 27-29, 2004.
 10. "Processing and Characterization of Palm Fiber-Polypropylene Composites With Coupling Agent Epolene G-3003", **Kahraman, R., Abu-Sharkh, B. F. and Abbasi, S.**, Fifth International Conference on Composite Science and Technology (ICCST/5), American University of Sharjah, UAE, February 1-3, 2005.
 11. "Optimal application of amphiphilic polyelectrolytes as primary flocculants in NOM-contaminated water", **R Alnaizy, S.M. Mozumder, B.F. Abu-Sharkh**, 7th World Congress of Chemical Engineer (WCCE), 10 – 14 July 2005, Scotland.
 12. "Effects of Light Intensity in Hydrogen Peroxide Based AOP for MTBE Removal from Contaminated Groundwater", **Alnaizy, R. and Al-Tawabini, B.**, 2004 AIChE Annual Meeting, November 7 - 12, Austin, TX.
 13. "MTBE Removal from Contaminated Groundwater by Advanced Oxidation Processes", **Al-Tawabini, B. and Alnaizy R.**, 6th International Conference and Exhibition on Chemistry in Industry, September 27-29, 2004 Manama, Kingdom of Bahrain.
 14. "Amphiphilic Polyelectrolytes as Primary Flocculants/Coagulants in Water Treatment: Dynamic Light Scattering Study", **Alnaizy, R., Mozumder, M. Sayem, and Abu-Sharkh, B. F.**, World Water & Environmental Resources Congress, Salt Lake City, Utah, June 27-July 1, 2004.

Electrical Engineering

1. "Thermal Analysis Assessment of Transformer Windings Insulation in different Outdoor Environment Conditions," **Khalid Sheltami, and M.H. Shwehdi**, has been accepted presentation at the CEIDP. USA. 2005.
2. "Electromagnetic Interference (EMI) Problem With Buried Pipelines; A Practical Case From Saudi Arabia," **M. H. Shwehdi, Jamil Bakhshwain, Bander Qahtani**, ACCEPTED for EMD'2005, Warsaw, Poland.
3. "A Forward-Backward Kalman for the Estimation of Time-Variant Channels in OFDM," **Tareq Y. Al-Naffouri and Arogyaswami Paulraj**, The sixth IEEE International Workshop on Signal Processing Advances in Wireless Communication, NY, June 5-8, 2005.
4. "Using RFID Smart Tags for Identifying Pilgrims", **M. Mohandes, M.A. Kousa and J. Bakhshwain**, Fifth Scientific Meeting for Hajj Research, Makkah, Saudi Arabia, January, 11-13, 2005.

5. "Performance and economic analysis of stand-alone hybrid wind-diesel power systems for remote area applications in Saudi Arabia" **Ibrahim El-Amin, A. Al-Shehri, & J. Bakhawain** , 10th Middle East Power Generation & transmission Conference, Dubai UAE, March 6-7, 2005.
6. "Harmonic Analysis of an industrial Process", **Ibrahim El-Amin**, presented to the IASTED conference on "Energy and Power Systems"(EPS 2005), Krabi, Thailand, April, 18-20, 2005.
7. "Solving the Narrow Corridor Problem in Potential Field-Guided Autonomous Robots", **Ahamd A. Masoud** Presented at: the 2005 IEEE International Conference On Robotics and Automation, Barcelona, Spain, pp. 2920-2925, April, 18-22, 2005.
8. "Design and Performance Optimization of LDPC Codes with Short Block Length," **Mohammad Adnan Landolsi**, Presented in the 1st International Conference on Modeling, Simulation & Applied Optimization, Sharjah, UAE, Feb. 2005.
9. "Cooperative Education Experience at King Fahd University of Petroleum & Minerals", **Al-Baiyat, S.A., Abuelma'atti, M.T., El-Suwailem, O.A., Budaiwi, I.M., Said S.A.M., and Abd El-Barr M.I.**, Proceeding of the 14th World Conference on Cooperative Education, Boston, USA, June 2005.

Mechanical Engineering

1. "The Double Yielding Phenomenon in Low Density Polyethylene", **Mezghani K., Faheem M.**, 21st Annual Meeting of the Polymer Processing Society (PPS-21), Leipzig, Germany, June 19-23, 2005.
2. "Laser in HVOF Coating and Three-Point Bending Tests", **Yilbas B.**, AMPT 05, Advanced Materials Processing Technologies, Poland, Warsaw, May 16-20, 2005.
3. "Artificial Neural Network Model for Predicting Bottomhole Flowing Pressure in Vertical Multiphase Flow," **Osman, E. A., Ayoub, M.A., and Aggour, M.A.**, paper SPE 93632, Presented in the 2005 SPE Middle East Oil Show and Conference, Bahrain, March 12-15, 2005.
4. "Artificial Neural Networks Models for Accurate Predicting PVT Properties for Oil Field Brines," **Osman, E. A., and Al-Marhoun, M. A.**, paper SPE 93765, Presented in the 2005 SPE Middle East Oil Show and Conference, Bahrain, March 12-15, 2005.
5. "Liquids Phase Holdup and Separation Characteristics as a Function of Well Inclination and Flowrate." **Awal, M.R., Zughbi, H.D., Razzak, S.A., Al-Majed, A.A. and Al-Yousef, H.Y.** (2005). Paper SPE SA-0520, Presented at the 2005 SPE Technical Symposium of Saudi Arabia Section held in Dhahran, Saudi Arabia, 14-16 May 2005.

6. "Field Based Criteria For The Design of Safe Mud Weight Window." **Mohiuddin, M. A., Khan, K., Abdulraheem, A., Al-Majed, A. and Aurifullah, V.** Paper No. SPE SA 0524 Presented at the 2005 SPE Technical Symposium, Dhahran, May 14-16, 2005.
7. "Permeability Anisotropy Measurement on Whole Cores - Analytical Solution and Application." **Al-Yousef, H. Y.** Paper SPE 93559 Presented at the 14th Middle East Oil Show & Conference, March 12-15, 2005, Bahrain.
8. "Laboratory Study on Precipitation of Calcium Sulphate in Berea Sandstone Cores," **Abu-Khamsin, S. A. and Ahmad, S.J.** Paper No. SPE-SA 0545 Presented at the 2005 SPE Technical Symposium of Saudi Arabia Section, Dhahran, Saudi Arabia, May 14-16, 2005.

College of Sciences

Chemistry Department

1. "Sequential Injection Kinetic Method for the Assay of Aspirin in Drug Formulations", **S. M. Sultan , Abubakr M. Idris, and Kamal E. E. Ibrahim,** ICFIA, Las Vegas, USA, 24-29 April, 2005.
2. "Sequential Injection Spectrophotometric Kinetic Method for the Assay of Paracetamol in Dosage Forms", **Abubakr M. Idris, Salah M. Sultan, Kamal E. E. Ibrahim,** ICFIA, Las Vegas, USA, 24-29 April, 2005.
3. " Sequential Injection Analysis for Ibn Zahr Water Quality Control", **Salah M. Sultan, Magnus U. Legemah, Khalid S. Al-Shammari, Mohammed. A. Al-Garni, and Mohammed A. Al-Zahrani,** ICFIA, Las Vegas, USA, 24-29 April, 2005
4. "Effective Utilization of WebCT for the delivery of Complementary E-Learning Material for Undergraduate Organic Chemistry", **I. Forristal,** 4th Annual WebCT European User Conference, Barcelona, Spain, Feb 2005.
(<http://www.webct.com/service/ViewContent?contentID=26314542>)

Earth Sciences

1. "Use of the GIS to delineate lineaments from LANDSAT images, Damman dome, Eastern Saudi Arabia", **Hariri, M and Abdullatif, O.** International Cartographic Conference, A Coruña, Spain, 9-16 July.
2. "Environmental impacts of quarries and construction works in the eastern region of Saudi Arabia", **Abdullatif, O. and Hariri, M.** 2005 Workshop on Development and Environment Protection, organized by Damman City Authority, Damman, January, 2005.
3. "Clay cementation and quality. Case studies from Saudi Arabia and Bangladesh

- gasfields", **Imam, B., Hussain, M., Al-Ramadan, K., 2004** XI Geological Congress, Bangladesh Geological Society, Abstracts with Programs, v. 16, p.15
4. "Neogene Hofuf Formation hosted Jabal Al Qarah caves: Structural and depositional constraints eastern Saudi Arabia: **Hussain, M., Al Khalifa, F., and Khandaker, N.I., 2004**, Programs with Abstracts, Geological Society of America, Invited talk, Annual Meeting & Exposition, Denver, USA, November 7-10, 2004.
 5. "Outcrop-based regional geology, culture, people and traditions Saudi Arabia: experience from geological field trips", **Hussain, M., 2005** Dhahran Geosciences Society (DGS) Invited Dinner Meeting Talk., Dhahran, April 8, 2005
 6. "Tethyan ophiolites along the western margin of the Indian plate, Pakistan", **Ahmed, Z.**, Oral presentation in the Session, T27.04- "Ophiolites and suture zones of the Tethysides", (code: A32IGC43LF), **Ahmed, Z., 2004** 32nd International Geological Congress, Florence, Italy, August 20-28, 2004.
 7. "Sedimentary facies and Paleoenvironments of the Miocene-Pliocene Hofuf Formation Saudi Arabia". **Abdullatif, O.** 24th IAS Meeting of Sedimentology, Muscat, Oman, 10-13 January 2005.

Mathematics Department

1. **B. Yushau, A. Mji, D.C.J. Wessels and M.A. Bokhari**, "Predictors of Success in Computer Aided Learning of Mathematics", (2005).
2. **B. Yushau and D.C.J. Wessels**, "Analysis of Problem Solving in Mathematics Teaching and Learning", S.M. Stewart and J.E. Olearski, editor, 60-66, (2005).
3. **M. El-Gebeily and B. Yushau**, "Using MS Excel to Solve System of Linear Equations", linear programming and matrix inversion problems, (2005).
4. **F.D. Zaman and Ahmed M. Al-Marzoug**, "Acoustic waves in a Perturbed Layered Ocean", Mathematical models and methods for real world system. K.M. Furati, M.Z. Nashed and A.H. Siddiqi, editor. Marcel Dekker/Taylor & Francis/CRC/Chapman, 299-314, (2005).
5. **H. Akca, R. Alassar, V. Covachev and Y. Shehadeh**, "Neural Networks: Modeling with Impulsive Differential Equations. Dynamical systems and applications. H. Akca, A. Boucherif and V. Covachev., editor, 32-471, (2005).
6. **Jawad Y. Abuihlail**, "Morita Contexts for Corings and Equivalences", Lecture notes in pure and applied mathematics 239. Hopf Algebras in Noncommutative Geometry And Physics. S. Caenepeel and F. Van Oystaeyan, editor. Macel Dekker, 1-20, (2005).
7. **M. El-Gebeily and B. Yushau**, "Algebraic Manipulation with Polynomials Using MS excel". S.M. Stewart and J.E. Olearski, editor, 67-73, (2005).

8. **M.R. Abujiya and H.A. Muttalak**, “Monitoring the Process Mean Based on Median Double Ranked Set Sampling”. First International Conference on Modeling, Simulation & Applied Optimization, (2005).
9. **K.M. Furati and A.H. Siddiqi**, “Mathematical Models and Algorithms for Type-II Superconductors”. In Proceedings of the CIAM Conference 2003 Mathematical Models and Methods for Real World Systems, (Eds. K.M. Furati, M.Z. Nashed and A.H. Siddiqi) Chapman & Hall/CRC, Taylor and Francis Group, Boca Raton, London, New York, Singapore, pp.47-72, (2005).
10. **K.M. Furati, P. Manchanda, M.K. Ahmad and A.H. Siddiqi**, “Trends in Wavelet Applications”. In Proceedings of the CIAM Conference 2003 Mathematical Models and Methods for real World Systems, (Eds. K.M. Furati, M.Z. Nashed and A.H. Siddiqi) Chapman & Hall/CRC, Taylor and Francis Group, Boca Raton, London, New York, Singapore, pp.125-178, (2005).
11. **O. Oguz, Z. Can, Z. Aslan and A.H. Siddiqi**, “Wavelet Analysis of Tropospheric and Lower Stratospheric Gravity Waves”. In Proceedings of the CIAM Conference 2003 Mathematical Models and Methods for Real World Systems, (Eds. K.M. Furati, M.Z. Nashed and A.H. Siddiqi) Chapman & Hall/CRC, Taylor and Francis Group, Boca Raton, London, New York, Singapore, pp.211-224, (2005).
12. **M.Y. Ramlova, A.H. Siddiqi, U. Avazov and M. Rahmatullaev**, “The Solutions of BBGKY Hierarchy of Quantum Kinetic Equatons for Dense Systems”. In Proceedings of the CIAM Conference 2003 Mathematical Models and Methods for Real World Systems, (Eds. K.M. Furati, M.Z. Nashed and A.H. Siddiqi) Chapman & Hall/CRC, Taylor and Francis Group, Boca Raton, London, New York, Singapore, pp.421-428, (2005).
13. **P. Manchanda, J. Kumar and A.H. Siddiqi**, “Mathematical Models for Modeling Price Fluctuations of Financial Time Series”. In Proceedings of the First International Conference on Modeling, Simulation and Applied Optimization, American University of Sharjah, February 2005, pp.1-3, CD ROM, Lecture 231.
14. **V. Covachev, H. Akca, and Y. Shehadeh**, “Periodic Solutions of the Discrete Counter Part of an Impulsive System with a Small Delay”. Dynamical System and Applications, Proceedings. H. Akca, A. Boucherif and V. Covachev.

Physics

1. Medical Physics students’ training using MCNP code, "The Monte Carlo Method: Versatility Unbounded In A Dynamic Computing World ", **Al-Kafi A, Maalej N, Naqvi**, the Monte Carlo 202005 Conference A Chattanooga, Tennessee, USA, at the Chattanooga Marriott and Convention Center on April 17-21, 202005.

2. "The use of MCNP code for Radiation Transport and Dosimetry Calculations in Training Medical Physics Students", **Abdullah Al-Kafi, Nabil Maalej, Akhtar Abbas Naqvi**, First UAE International Conference on Biological and Medical Physics March 27-30, 202005.
3. "Investigation of the local structure of Mo-Te glasses by XPS" **A. Mekki and GD Khattak**, International Symposium on Glass, Shanghai, China, 10-14 April 202005.
4. "Performance Tests of an Accelerator-based Prompt Gamma Ray setup", **Naqvi A., A. , M. M. Nagadi, Khateeb-ur-Rehman** and M. Maslehuddin, Australian Institute of Physics 16th Biennial Congress 202005, held on Jan. 31-Feb. 5, 202005 at Australian National University, Canberra, Australia.
5. "Non-Destructive Evaluation of Concrete Samples using PGNAA Technique", **Naqvi A. A., M. M. Nagadi** and O. S. B. Al-Amoudi, Presented in 11th International Conference on "Modern Trends in Activation Analysis" , 20th-25th June 2004, University of Surrey, Guildford, UK.
6. "Gamma-ray Yield Dependence Upon Bulk Density and Moisture Contents of a Sample of a PGNAA Setup", **Nagadi M. M. and A. A. Naqvi.**, A Monte Carlo study. Presented in 11th International Conference on "Modern Trends in Activation Analysis, 20th-25th June 2004, University of Surrey, Guildford, UK.
7. "Simple Procedures For Image Quality Assurance and Dose Reduction in Mammography", **Nabil Maalej**, First UAE International Conference on Biological and Medical Physics March 27-30, 202005.
8. "Synthesis and Properties of Nanocrystalline ZnO" **N. Tabet**, N. Boulares, **M. Faiz** and C. Monty , Nanotech Insight, Feb. 20-25th, Luxor, Egypt, (202005).
9. "Photocatalytic Properties of Nanocrystalline ZnO", **N. Tabet**, N. Boulares and C. Monty, SESAME third users Meeting, Antalya, Turkey, 11 Oct. 2004 .
10. "Extracting Tumor Contrast, Differential Signal to Noise Ratio and the Receiver Operator Characteristic Curve Using MATLAB", **Ruhul Amin, Nabil Maalej**, First UAE International Conference on Biological and Medical Physics March 27-30, 202005.

College of Computer Science & Engineering

Information & Computer Science

1. "Performance Comparison of IPv6 versus IPv4 in Multimedia Oriented E-learning System", **H.M. Saleem, M.I. S. Buhari**, Brunei International Conference on Engineering and Technology [BICET 2005], 15 - 18 August 2005.

2. "Outcome-based Pedagogical analysis of Offering Online courses in Higher Education - A Case Study", **H.M. Saleem, M.I. S. Buhari**, The 2005 ASAIHL Seminar, 27- 30 June 2005.
3. "Input-termination of logic programs, Proc. of LOPSTR'2004", **M.R.K. Krishna Rao**, Lecture Notes in Artificial Intelligence **3573**, 215-230, 2005.
4. "Principles of curriculum design and revision: a case study in implementing computing curricula CC2001", **M.R.K. Krishna Rao, S. Junaidu, T. Maghrabi, M. Shafique, M. Ahmad and K. Faisal**, to appear in Proc. of the ACM Special Interest Group on Computer Science Education Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE'2005).
5. "Infusing critical thinking skills into content of AI course", **M.R.K. Krishna Rao**, to appear in Proc. of the ACM Special Interest Group on Computer Science Education Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE'2005).
6. "A Parallel Tabu Search Algorithm for Multiobjective VLSI Placement", **Mahmood R. Minhas and Sadiq M. Sait**, In Proceedings of International Conference on Computer Science and its Applications (ICCSA 2005), Singapore, May 9-12, 2005.
7. "Multiobjective VLSI Cell Placement using Distributed Genetic Algorithm", **Sadiq M. Sait, Muhammad Faheemuddin, Mahmood R. Minhas, Syed Sanaullah**, Genetic and Evolutionary Computation Conference (GECCO 2005), Washington D. C., USA, June 25-29, 2005.
8. "A Ubiquitous Approach for Next Generation Information Retrieval System", **Tarek H. El-Basuny**, Proceedings of the IEEE/CS International Conference on Information and Computer Science (ICICS 2004), KFUPM, Dhahran, Saudi Arabia, 28-30 November 2004, ISSN 9960-07-212-6©KFUPM, pp. 501-513.
9. "Multi-agent based Electronic Commerce System", **Tarek H. El-Basuny**, Proceedings of the 1st IEEE International Computer Engineering Conference New Technologies for the Information Society, Cairo University, Egypt, 27-30 December 2004, pp. 791-796.
10. "On V&V of Web Service Oriented Architectures", **Abdelkader Dekdouk, Tarek H. El-Basuny**, Proceedings of the Second ACM/SIGART/SIGMIS International Conference on Intelligent Computing and Information Systems ISBN 977-237-172-3, March 5-7, 2005, Ain Shams University, Egypt, pp. 536-542.

Computer Engineering Department

1. "Comparison of CSV and DOM Tree Approaches in XML-based Network Management", **Shaik Sirajuddin and Mohammed H. Sqalli**, Proceedings of the 12th International Conference on Telecommunications, Cape Town, South Africa, May 3-6, 2005.

2. “Simulation and Formal Verification of DHCP”, **Syed M.S. Islam, Mohammed H. Sqalli and Sohel Khan**, Proceedings of the Information and Communication Technologies International Symposium (ICTIS 2005), Tetouan, Morocco, June 3-6, 2005.
3. “Performance Analysis of Internet Applications over an Adaptive IEEE 802.11 MAC Architecture”, **U. Baroudi and Mohammad Mohiuddin**, First International Conference on Modeling, Simulation and Applied Optimization, Sharjah, UAE, March 2005.

Systems Engineering Department

1. “KFUPM Faculty Work Experience in Industry”, **H.K. Alfares**, The Discussion Forum on University/Business Interaction, January 4, 2005, KFUPM.
2. “Scheduling Laboratory Technicians at an Oil Refinery”, **H.K. Alfares**, The 1st International Conference on Modeling, Simulation, and Applied Optimization, Sharjah, United Arab Emirates, February 1-3, 2005.
3. “University-Industry/Business Interaction: KFUPM Experience”, **H. Al-Fares, A. Jaber, M. Achoui, A. Bubshait, O. Al-Swailem and S.A.M. Said**, Conference on University-Private Sector Partnership in Research & Development, Riyadh, Saudi Arabia, April 10-12, 2005, 25-34.
4. “Simulation of Pipeline Flow for Leak Detection and Isolation”, **H. Emara-Shabaik, Y.A. Khulief**, The First International Conference on Modeling, Simulation and Applied Optimization, ICMSAO/05, American University, Sharja, UAE, February 1-3, 2005.
5. “Strong Stabilization: An LMI Approach”, **A.W. Al-Saif**, Third IEEE International Conference on Systems, Signals & Devices, Sousse (Tunisia), March 21-24, 2005.

College of Industrial Management

Department of Management & Marketing

1. "Performance of Multinational Subsidiaries in Malaysia" Selvamalar Ayadurai and **Sohail, Sadiq. M .** Second World Congress of the Academy for Global Business Advancement, The Grand Hotel, New Delhi, India, January 3-5, 2005 (also published in Advances in Global Business, Vol. 2, 2005)
2. "A Domestic and International Analysis of HICOM-PROTON and Malaysia's Automobile Industry," Sohail, **Sadiq. M** , Ahmed,Z.U. Ingram.J , Proyer,M.G., and Awang R., The International Academy of Business and Public Administration Disciplines (IABPAD) Conference, May 23-26, 2005, at the Doubletree Hotel in Dallas, Texas (also published in the IABPAD conference proceedings).
3. "Profile of Women Entrepreneurs in a War-Torn Area: Case Study of North-East Sri Lanka" Selvamalar Ayadurai and **Sohail, Sadiq. M** 2005 International Council for Small Business (ICSB) Conference, "Golden Opportunities for Entrepreneurship," Crystal Gateway Marriott in Washington, DC, June 15-18, 2005
4. "Quality, Non Quality And Technological Innovation'', 10th Symposium on Total Quality, Saudi Electricity Company, Khobar – Saudi Arabia", **Oukil, M. Said**", April 26-27, 2005;
5. "Establishment and Management of Science and Technology Parks and the Role of the Private Sector: the Case of Algeria", Conference of University-Private Sector Partnership in Research & Development, King Saud University, Riyadh – Saudi Arabia, **Oukil, M. Said**", April 10-13, 2005.
6. "Supply Chain Management & Innovation: De Nouvelles Frontières En Perspectives'', Journées d'Etudes INFORUM 2005, l'ERP DANS L'ENTREPRISE, "**Oukil, M. Said**", March 28-29, 2005, El-Aurassi Hotel, Algiers, Algeria.
7. "The Relationship Between Technological Innovation and International Marketing'', ISRA University First International Conference, Amman - Jordan, "**Oukil, M. Said**", March 29-31, 2005;
8. "Entrepreneurship and Technological Innovation in Developing Countries: Hurdles to Higher Performance and Globalization", AGBA-2005, New-Delhi, India, **Oukil, M. Said**", January 2-5, 2005.

College of Environmental Design

Architectural Engineering Department

1. "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.
2. "Academic Program Assessment and Accreditation: KFUPM Experience". **Al-Homoud, M. S** Proceedings of the 5th Conference on Quality in Higher Education, Volume 3, pp. 972-989, April 11-13, 2005, Bahrain.
3. "A Review of Object Oriented CAD Potential for Building Information Modelling and Life Cycle Management", Garba, S. and Hassanain, M., Proceedings of the First International Conference on Computer Aided Architectural Design, E-Design in Architecture, 22-24 February, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, 2005, pp 343-359.

City & Regional Planning Department

1. "Affordable Housing in Saudi Arabia: A Comparative Analysis", **Aldosary, Adel, Munawer, Sayed**, Low Priced Construction Systems and Patterns in Urban Settlements, Amman, Jordan May 16- 19, 2005, pp. 107-118.
2. "GIS Applications in Infrastructure and Facilities Management", **Aldosary, Adel**, Kuwait 1st International GIS Conference & Exhibition, Crown Plaza Hotel, Kuwait, 5-7 February 2005.

10. BOOKS PUBLISHED AND CONTRIBUTIONS

College of Engineering

Electrical Engineering

1. “Modeling and Simulation in SIMULINK for Engineers and Scientists”, **Mohammad Nuruzzaman**, Author House, Bloomington, Indiana, USA, January, 2005.
2. “Intermodulation Distortion and Measurement, Wiley Encyclopeddia of RF and Microwave Engineering”, **M.T. Abuelma’atti**, John Wiley and Sons, New Yorks, U.S.A., April 2005.

College of Sciences

Earth Sciences

1. "Geomorphological Features in Saudi Arabia" as Part of "*The Atlas of Saudi Arabia from Landsat Images*", **Al-Saafin, A. Kh. and Al-Murabit, O.** Prince Sultan Center for Environment, Water, and Desert, Riyadh, Saudi Arabia, pp 128-144, (2005) (In Print)
2. "Allocation of Natural Hazards in Saudi Arabia" as part of "*The Atlas of Saudi Arabia from Landsat Images*", **Al-Saafin, A. Kh. and Al-Murabit, O.** Prince Sultan Center for Environment, Water, and Desert, Riyadh, Saudi Arabia, pages 42, 44, and 62, (2005) (In Print).

Mathematics Department

1. “Mathematical Models and Methods for Real World Systems”, **K.M. Furati, Zuhair Nashed and Abul Hasan Siddiqi**, (Eds.), Chapman & Hall/CRC Taylor & Francis Group, Boca Raton, London, New York, Singapore, 2005.

College of Computer Science & Engineering

Information & Computer Science

Book:

1. “Computer Aided Intelligent Recognition Techniques and Applications”, **Sarfraz, M.** ISBN: 0-470-09414-1, John Wiley and Sons, 2005.

Book Chapters:

2. “On Offline Arabic Character Recognition”, **Sarfraz, M. Zidouri, A. and Nawaz, S. N.** (2005), Computer-Aided Intelligent Recognition Techniques and Applications, Ed.: M. Sarfraz, ISBN: 0-470-09414-1, John Wiley and Sons, 1 – 18.

3. “License Plate Recognition System: Saudi Arabian Cas”, **Sarfraz, M. and Ahmed, M. J.** (2005), Computer-Aided Intelligent Recognition Techniques and Applications, Ed.: M. Sarfraz, ISBN: 0-470-09414-1, John Wiley and Sons, 19 – 32.
4. “Intelligent Iris Recognition Using Neural Networks”, **Sarfraz, M., Deriche, M., Moinuddin, M., and Ali, S.S.A.** (2005), Computer-Aided Intelligent Recognition Techniques and Applications, Ed.: M. Sarfraz, ISBN: 0-470-09414-1, John Wiley and Sons, 145 – 167.
5. “A New Approach to Corner Detection”, **Sarfraz, M., Asim, M.R. and Masood, A.** (2005), Computer Vision and Graphics Ed.: Ryszard S. Kozera, Lyle Noakes, Henryk Palus, Władysław Skarbek, Bogdan Smolka, Konrad Wojciechowski, Springer Verlag, ISBN: 1-4020-1817-7, 528 – 533.
6. “Web Based Evolutionary Approach for Data Visualization”, **Sarfraz, M., and Riyazuddin, M., Baig, M.H.** (2005), Computer Vision and Graphics, Ed.: Ryszard S. Kozera, Lyle Noakes, Henryk Palus, Władysław Skarbek, Bogdan Smolka, Konrad Wojciechowski, Springer Verlag, ISBN: 1-4020-1817-7, 1094 – 1099.

11. TECHNICAL REPORTS

College of Engineering

Civil Engineering

1. "Analysis and Design of Buried Pipelines," **Abduljawwad, S.N., Al-Ghamedy, H.N., Balah, M.A., Siddiqui, J.A., and Al-Muhtaseb, H.**, Second Progress Report, Project No. CE2232, submitted to Saudi Aramco, January 2005.
2. "Development of Improved Protection System for CCP Construction," **Azad, A.K. et al.**, Third Progress Report, Project No. CER 2264, submitted to Ameron, January 2005.
3. "A Study of the Relationship between Permeability and Tortuosity of Concrete," **Azad, A.K., Ahmad, S., and Loughlin, K.F.**, Final Report, ARI-016, January 2005.
4. "A Preliminary Inspection of Railroad Culverts on Dammam-Riyadh Railway," **Azad, A.K.**, proposal submitted to Saudi Railway Organization, January 2005.
5. "Evaluation of the Potential of Using Sulfur Asphalt in Saudi Roads," **Al-Abdul Wahhab, H.I. and Baig, M.G.**, First Progress Report, submitted to Saudi Aramco, February 2005.
6. "Tire Explosion Cause and Consequence in Saudi Arabia," **Ratrout, N., Al-Abdul Wahhab, H., and Al-Ofi, K.**, Final Report, KACST, Muharram 1426H (March 2005).
7. "Preliminary Inspection and Ranking of Culverts and Bridges on Dammam-Hofuf Railway Networks," **Azad, A.K. et al.**, Final Report, submitted to Saudi Railway Organization, April 2005.
8. "Cracking of Concrete: Its Effect, Causes and Control," **Azad, A.K.**, proposal submitted to the CES for CES Innovation Grant, May 2005.
9. "Development of Improved Protection System for CCP Construction," **Azad, A.K. et al.**, Draft Final Report, Project No. CER 2264, submitted to Ameron, June 2005.
10. "Improving the Performance of Damaged FBECR in Chloride-Contaminated Concrete," **Al-Gahtani, A.S. and Al-Amoudi, O.S.B.**, Final Report, Project No. SABIC 2001/13, June 2005.
11. "Accelerated Testing Comparison of SAES-Q-006 Foam Asphalt and Aggregate/Hot Asphalt Mix Asphalt Pavement Sections," **Al-Abdul Wahhab, H.I. and Baig, M.G.**, First Progress Report, submitted to Saudi Aramco, June 2005.
12. "Pavement Materials Laboratory Manual – CE 579," **Al-Abdul Wahhab, H.I.**, C.E. Department, KFUPM, July 2005.

13. "Traffic Impact Study of Building 63 at King Fahd University of Petroleum & Minerals," **Ratrout, N. and Al-Ahmadi, H.**, report submitted to KFUPM, Dhahran, August 2005.
14. "Analysis and Design of Buried Pipelines," **Abduljawwad, S.N., Al-Ghamedy, H.N., Balah, M.A., Siddiqui, J.A. and Al-Muhtaseb, H.**, Third Progress Report, Project No. CE2232, submitted to Saudi Aramco, August 2005.

Chemical Engineering

1. "Industrial Applications involving Diffusion and Adsorption of para-xylene and 1,3,5 tri-isopropylbenzene in Molecular Sieves", **Al-Khattaf, Suleiman, Loughlin, Kevin F., & Zaman, Sharif**, Final Report: Research Project No. SABIC-2003/13, 275 pages Deanship of Graduate Studies, KFUPM, Dhahran, February 15th, 2005
2. "Study of the Relationship between permeability and tortuosity of concrete", **Azad, A., Ahmad, S. & Loughlin, K. F.**, Final Report, ARI 016 Research Project, 67 pages submitted to KFUPM/RI, KFUPM Dhahran, January 12, 2005.
3. "Department of Chemical Engineering – Self-Assessment Report", **Ramazan Kahraman, Kevin Loughlin, Usamah Al-Mubaiyedh, and Habib Zughbi**, April 2005, Submitted to Deanship of Academic Development, King Fahd University of Petroleum & Minerals, Dhahran, 183 pages.

Electrical Engineering

1. "Robust Shunt Connected FACTS Devices for Power System Damping Improvement", **A.H.M.A. Rahim**, Final report on KFUPM sponsored project submitted to KFUPM Research Committee, February 2005.
2. "Electric energy production costing for the Saudi Electricity Sector", **Ibrahim O Habibalah**, Final report submitted to Electricity and Cogeneration Regularity, Riyadh, May 2005.
3. "Optimized Design and DSP Implementation of CDMA PN Code Synchronization Systems," **M.A.Landolsi, H.B. Ganiyu and M.K. Aregbesola**, Final Report for KFUPM Fast Track Project 2003/06, June 2005.
4. "Novel Millimeter-Wave Semiconductor Phase Shifters and its Application in Phased Array Antennas", **Sheikh Sharif Iqbal**, Final Progress Report of a Fast Track project (FT/2001-02).
5. "Electric energy production costing for the Saudi Electricity Sector", **Ibrahim El-Amin, Ibrahim O Habibalah, A. Al-Shehri, Y. Abdel-Magid & J. Bakhashwain** Final report submitted to Electricity and Cogeneration Regularity, Riyadh, May 2005.

6. “Wind Energy For Remote Villages” **Ibrahim El-Amin, A. Al-Shehri, J. Bakhawain , S. Rehman, F. AHMED, and S. Shaahid,** Final report submitted to Saudi Electricity Company, Riyadh, May, 2005.
7. “Utilization Of Peak And off-Peak Electricity Prices” Ibrahim El-Amin, A. Al-Shehri, & S. Al-Baiyat, F. Ahmed, Fourth Progress Report Submitted To Saudi Electricity Company, Riyadh, May 2005.

College of Sciences

Earth Sciences

1. "Origin and economic significance of kaolin (China clay) deposits in Abha-Khamis Mushayt area in Asir Province". (P.I. : . **Mahbub Hussain; C.I: Abdulatif Osman**). KACST LGP 7-15 – 2003-2005 - FINAL REPORT
2. "Wavelet phase-preserving estimation using fourth-order cumulant for deconvolution enhancement". **Abdulghani, W. M., Khene, F.M. and Al-Shuhail, A.A.,** RI project # CPM – 2237.
3. Geological and Engineering Geological Characterization of Fractures and Rock Masses within Dammam Dome, Saudi Arabia (**P.I. Hariri, M, CI Abdullatif, O**) Sabic Research Grant # SABIC 2002-06.

Mathematics Department

1	“Tikhonov Regularization Method for the Numerical Inversion of Mellin Transforms Using Splines”, M. Iqbal , Technical Report # 323, (March 2005).
2	“A Note on Coinduction Functors between Categories of Comodules for Corings”, Jawad Y. Abuihlail , Technical Report # 324, (March 2005).
3	”Hopf Pairings and (Co) induction Functors over Commutative Rings”, Jawad Y. Abuihlail , Technical Report # 325, (March 2005).
4	“Dual Entwining Structures and Dual Entwined Modules”, Jawad Y. Abuilhail , Technical Report # 326, (March 2005).
5	“Duality Theorems for Crossed Products Over Rings”, Jawad Y. Abuilhail , Technical Report # 327, (March 2005).
6	“The Expected Sample variance in a General Situation”, Anwar H. Joarder ,

	Technical Report # 328, (May 2005).
7	"Standard Deviation for Small Samples", Anwar H. Joarder and Raja M. Latif , Technical Report # 329, (May 2005).
8	"Product Moments of Bivariate Wishart Distribution", Anwar H. Joarder , Technical Report # 330, (May 2005).
9	"Characterizations and Applications of η -Open Sets", Raja Mohammad Latif , Technical Report # 331, (May 2005).
10	"Characterizations of Mappings in η -Open Sets", Raja Mohammad Latif , Technical Report # 332, (March 2005).
11	"On Harmonic Morphisms Projecting Harmonic Functions to Harmonic Functions", M.T. Mustafa , Technical Report # 333, (May 2005).
12	"The Jacobi Identity", H. Azad , Technical Report # 343, (May 2005).
13	"On a Bivariate Chisquare Distribution", Anwar H. Joarder , Technical Report # 335, (June 2005).

Physics

"Structure and Magnetic Properties of Transition Metal Doped Tellurite Glasses", **A. Mekki and GD Khattak**, First Progress Report, Project # SAB/2004/04, February 202005.

College of Environmental Design

City & Regional Planning Department

1. **An Investigation into the Application of GIS for Infrastructure and Facilities Management in Saudi Arabia:** A 2-years project with a total fund of S.R. 150,000. Starting date is (1/3/2002 AD). . (Principal Investigator). Final Report Submitted January 2005.
2. **"National Plan for the Saudization of the Recreation Sector"** Project for the Supreme Council for Tourism, Riyadh, May 2005, (SR. 277,300 Budget). Principal Investigator, May 2005.

12. LECTURES AND SEMINARS GIVEN BY UNIVERSITY FACULTY

College of Engineering

Electrical Engineering

1. Speaker : Dr. M.H. Shwehdi
 Topic : Harmonic Analysis on Transmission Network
 Date : March 01, 2005.

2. Speaker : Dr. Essam Hassan
 Topic : On the Solution of Surface Current on Objects Using
 Green ' s Second Identity.
 Date : March 08, 2005.

3. Speaker : Dr. Kamal Babour
 Topic : Presentation to the Electrical Engineering Department on
 the Schlumberger Dhahran Carbonate Research Center
 Date : March 15, 2005.

4. Speaker : Dr. Ahmed Yamani
 Topic : Electrochemical Impedance Spectroscopy to monitor
 corrosion
 Date : March 22, 2005.

5. Speaker : Mr. Muhammad Moinuddin, Ph.D. Student
 Topic : Constrained Adaptive Algorithms for CDMA system
 Date : March 29, 2005.

6. Speaker : Dr. Sheikh S. Iqbal
 Topic : Millimeter-Wave Semiconductor Phase Shifters
 Date : April 05, 2005.

7. Speaker : Dr. Adnan Andalusi and/or Mr. Badr Al-Dohan
 Topic : Low Density Parity-Check Codes: A hardware
 Implementation Perspective.
 Date : April 26, 2005.

8. Speaker : Dr. Mohamed Deriche
 Topic : The Multiple Faces of the Face Recognition Problem
 Date : May 03, 2005.

9. Speaker : Prof. Hans D. Mittelmann Arizona State University, USA
 Topic : Optimal Signal Design in System Identification
 Date : May 10, 2005.

- 10 Speaker : Dr. Sheikh S. Iqbal
 Topic : Smart Card Technology and Application. (Lecture)
 Date: : May 11, 2005

11. Speaker : Dr. Ibrahim El-Amin
 Topic : Electricity Deregulation and its Application to Saudi Arabia, presented to the 12th IEEE-TEM, Dhahran.
 Date : May 16-18, 2005.

Lectures/Seminars presented by non-KFUPM Faculty

1. Speaker : Dr. H. Ghafouri Shiraz
 Topic : Reduction of Coupling loss Between Laser Diodes and Single-Mode Fibres Using Conically Shaped Microlenses
 Date : January 2, 2005.
2. Speaker : Dr. Kamal Babour
 Topic : Presentation to the Electrical Engineering Department on the Schlumberger Dhahran Carbonate Research Center
 Date : March 15, 2005.
3. Speaker : Prof. Hans D. Mittelmann Arizona State University, USA
 Topic : Optimal Signal Design in System Identification
 Date : May 10, 2005.

Mechanical Engineering

1. Speaker : Mr. Radhi Al-Asafirah
 Topic : Performance Rating of Unitary Air-Conditioning Equipment in ATC Labs.
 Date : February 22, 2005
2. Speaker : Dr. Meyassar Al-Haddad
 Topic : Depleted Uranium from A to Z
 Date : March 01, 2005
3. Speaker : Mr. Syed Hafeez
 Topic : A Study of the Static and Dynamic Properties of Al Based Al_2O_3 Metal Matrix Composites
 Date : March 08, 2005
4. Speaker : Mr. Jafar H. Al Bin Mousa
 Topic : Numerical & Experimental Analysis of Mixed Mode Crack Initiation Angles
 Date : March 15, 2005
5. Speaker : Mr. M. A. Al-Shammari
 Topic : Compressible Flow in a Pipe Junction
 Date : March 22, 2005

6. Speaker : Mr.M. K. Ahmed
 Topic : Effect of Outflow Orientation on Heat Transfer in a
 : Rectangular Channel with a Single Array of Impinging Jets
 Date : March 22, 2005

7. Speaker : Dr. Ameen H. El-Sinawi
 Topic : Two-Dimensional Vibration suppression in Machining
 : Using a Kalman Estimator-Based Feed-Forward Active
 : Controller
 Date : March 29, 2005

8. Speaker : Dr. Muhammad E. Kabir
 Topic : Numerical Investigation of Erosion of Protruded Pipe with
 : Sudden Contraction
 Date : April 05, 2005

9. Speaker : Mr. Turki Al-Qahtani
 Topic : Effects of Strain Rate and Temperature on Fracture
 : Toughness and Tensile Properties of CPVC
 Date : April 19, 2005

10. Speaker : Mr. Shaik Samivullah
 Topic : Laminar Mixed Convection in Vertical Channels
 Date : April 26, 2005

11. Speaker : Mr. Mohammed K. Naik
 Topic : The Effect of Environmental Conditions on the
 : Mechanical Properties of Glass Fiber Reinforced
 : Vinylester Thermoset Pipes
 Date : May 03, 2005

12. Speaker : Mr. Basem A. al-Musalli
 Topic : Gas Flow Through Elbows : Numerical Investigation
 Date : May 03, 2005

13. Speaker : Mr. M.P. Faheemuddin
 Topic : Effect of Mold Temperature on the Mechanical Properties
 : of Poly (Ethylene Terephthalate)
 Date : May 10., 2005

14. Speaker : Mr. Rakan A. Al-Shammary
 Topic : Fatigue of Pipeline Steel Damaged by Hydrogen Induced
 : Cracking
 Date : May 10, 2005

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|-----|---------|---|--|
| 15. | Speaker | : | Dr. Khalid A. Al-Dheyman |
| | Topic | : | Correlation of low-velocity impact strength with static material properties for whisker reinforced ceramic composites |
| | Date | : | May 17, 2005 |
| | | | |
| 16. | Speaker | : | Mr. Mohammed Shafeeq |
| | Topic | : | Effect of environment on the tensile and fatigue resistance of glass fiber-reinforced vinyl ester and epoxy thermoset composites |
| | Date | : | May 24, 2005 |
| | | | |
| 17. | Speaker | : | Mr. Syed Shujath Ali |
| | Topic | : | Effect of particulate volume fraction on the low cycle fatigue behavior of Al ₂ O ₃ reinforced 6061 Al composite |
| | Date | : | May 24, 2005 |
| | | | |
| 18. | Speaker | : | Mr. Ali A. Al-Ugla |
| | Topic | : | Transient Natural Convection in Vertical annuli with Rotating Inner Walls |
| | Date | : | May 24, 2005 |
| | | | |
| 19. | Speaker | : | Mr. Mohammed Abbas |
| | Topic | : | Corrosion Studies, Microstructural Analysis and Mechanical Properties of Advanced Aluminum Alloys with Sc and Zr Additions |
| | Date | : | May 31, 2005 |
| | | | |
| 20. | Speaker | : | Mr. Khalid M. Al-Mansour |
| | Topic | : | Evaluation of Flow Maldistribution in a Header of an Air Cooled Heat Exchanger |
| | Date | : | May 31, 2005 |
| | | | |
| 21. | Speaker | : | Mr. Mohammad Al-Shibl |
| | Topic | : | Prediction of Flow and Heat Transfer in the Entry Region of Concentric Cylinders with Rotating Inner Walls |
| | Date | : | May 31, 2005 |

College of Sciences

Chemistry Department

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|----|---------|---|--------------------------------|
| 1. | Speaker | : | Mr. Shoaib Qureshi |
| | Topic | : | Web of Knowledge |
| | Date | : | 5 th October, 2004 |
| | | | |
| 2. | Speaker | : | Mr. Jaweed Yazdani |
| | Topic | : | KFUPM, IT Computing Resources |
| | Date | : | 19 th 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 : A symmetric Synthesis of Aziridines
 Date : 7th December, 2004

6. Speaker : Mr. Ahsan M. Shemisi
 Topic : Microwave Assisted Synthesis of Heterocyclic
 Compounds
 Date : 21st December, 2004

7. Speaker : Dr. Nahid Siddiqui
 Topic : Keep Personal Homepage updated: An interactive
 presentation for beginners
 Date : 8th March, 2005

8. Speaker : Dr. H.M. Badawi
 Topic : Internal Rotation & Ring Inversion in small organic
 compound
 Date : 22nd March, 2005

9. Speaker : Dr. T.H. Maung
 Topic : Laser Technique
 Date : 19th April, 2005

10. Speaker : Dr. Aric El-Mubarak
 Topic : Phthalates and Pesticides As Endocrine Disrupters.
 Date : 26th April, 2005

11. Speaker : Shoaib Quraishi
 Topic : Introduction to KFUPM Library,
 Horizon Library Automation System
 Date : 24 May, 2005

12. Speaker : Dr. Tomoyuki Inui
 Title : Oil industry in Saudi Arabia has attained to a prominent
 status in both in upstream and downstream.
 Date : 29th May, 2005

13. Speaker : Dr. M. Fettouhi
 Title : Molecular Magnets and the Catalytic oxidation reaction of alcohols
 Date : 14th June, 2005

Earth Sciences

1. Speaker : Dr. A. R. Ghaleb
 Title : Learning strategies: How students learn?
 Date : March 1, 2005
2. Speaker : Prof. Gabor Korvin
 Title : Questions asked by students
 Date : March 5, 2005 (Physics Tea Seminar)
3. Speaker : Dr. Zulfiqar Ahmed
 Title : The case for medical geology
 Date : April 19, 2005
4. Speaker : Prof. Gabor Korvin
 Title : The mysterious cementation exponent
 Date : April 24, 2005 (Physics Seminar)
5. Speaker : Dr. Abdullatif Osman
 Title : Sedimentology and diagenesis of Yabus sandstone reservoir, Melut Rift Basin, Sudan
 Date : May 3, 2005

Mathematics Department

Lecturers/Seminars by Math Faculty:

1.	Speaker Title Date	:	Dr. Raja M. Latif Applications of γ -Open Sets and Characterizations of Mappings Sunday, February 13, 2005
2.	Speaker Title Date	:	Dr. S. Al-Homidan Approximate and Exact Completion Problems for Euclidean Distance Matrices Sunday, February 20, 2005
3.	Speaker Title Date	:	Prof. Mohammad El-Gebeily Existence and Generalized Quasi-linearization Methods for Singular Nonlinear Differential Equations. Sunday, March 13, 2005
4.	Speaker Title Date	:	Dr. Qamrul H. Ansari Systems of Variational Inequalities and Nash Equilibrium Problem

			Sunday, April 3, 2005
5.	Speaker	:	Dr. Abdeslam mimouni
	Title	:	Classes of Integral Domains Characterized by Stat-Operation
	Date	:	Sunday, May 1, 2005
6.	Speaker	:	Prof. Bilal Chanane
	Title	:	On a Class of Random Sturm-Liouville Problems
	Date	:	Sunday, May 29, 2005
7.	Speaker	:	Dr. Jawad Abuhlail
	Title	:	Primeness and Coprimeness Properties for Comodules and
	Date	:	Corings
			Sunday, June 12, 2005

Math Education Seminars

1.	Speaker	:	Dr. Rajai Alassar
	Title	:	Harvesting Renewable Natural Resources
	Date	:	Tuesday, March 15, 2005
2.	Speaker	:	Mr. Abdulaziz Saleh Al-Shahrani (Teacher Ministry of
	Title	:	Education, Dammam)
	Date	:	Tuesday, May 3, 2005

Lectures/Seminars by outside speakers

1.	Speaker	:	Prof. Jan Hogendijk (Mathematics Institute, Univ. of Utrecht &
	Title	:	Leiden, Holland)
	Date	:	The Mathematical Methodology of Medieval Islamic Astronomy
			Sunday, December 14, 2005
2.	Speaker	:	Prof. Jan Hogendijk (Mathematics Institute, Univ. of Utrecht &
	Title	:	Leiden, Holland)
	Date	:	Mathematics in Medieval Islamic Spain
			Sunday, February, 22, 2005
3.	Speaker	:	Prof. Robert Wisbauer (Heinrich-Heine Univ, Dusseldorf-
	Title	:	Germany)
	Date	:	Tilting Modulees
			Sunday, February 27, 2005
4.	Speaker	:	Dr. Abdelhadi Belkhirat (Hail College)
	Title	:	Thurston's Weak Metric on the Teichmuller Space of the Torus
	Date	:	Sunday, March 20, 2005
5.	Speaker	:	Prof. Aissa Guesmia (Dept. of Math. Univ. Metz, France)
	Title	:	Integral Inequalities and Applications to Stabilization of
	Date	:	Nondissipative Distributed Systems
			Sunday, April 24, 2005
6.	Speaker	:	Prof. Hans D. Mittlemann (Arizona State Univ. USA)
	Title	:	Web-Based Optimization (Tools and Service)
	Date	:	Tuesday, May 3, 2005
7.	Speaker	:	Visiting Prof. Aissa (Dept. of Math. Univ. Metz, France)
	Title	:	Integral Inequalities and Applications to Indirect Stablization of
	Date	:	Coupled Hyperbolic System
			Sunday, May 8, 2005

8.	Speaker	:	Prof. Hans D. Mittlemann (Arizona State Univ. USA)
	Title	:	Iterative Methods for Variational Inequalities (Part I)
	Date	:	Sunday, May 8, 2005
8.	Speaker	:	Prof. Hans D. Mittlemann (Arizona State Univ. USA)
	Title	:	Iterative Methods for Variational Inequalities (Part II)
	Date	:	Sunday, May 15, 2005
9.	Speaker	:	Prof. Hans D. Mittlemann (Arizona State Univ. USA)
	Title	:	Optimal Rational Interpolation in Approximation and Boundary
	Date	:	Value Problems
		:	Sunday, May 15, 2005

Research (StaR) Group Seminar

1.	Speaker	:	Dr. Mohammad H. Omar
	Title	:	Role of Statistics in Developing Standardized Examinations in the US
	Date	:	Tuesday, March 22, 2005
2.	Speaker	:	Dr. Anwar h. Joarder
	Title	:	Some Product Moments of Bivariate Wishart Distribution
	Date	:	Tuesday, March 29, 2005
3.	Speaker	:	Dr. Mohammad H. Omar
	Title	:	The Role of Statistics in Developing Standardized examination in the US
	Date	:	Tuesday, April 19, 2005
4.	Speaker	:	Dr. Walid Abu-Dayyeh
	Title	:	Modified Inference about the Location and Scale Parameters of Some Distributions Using Several Sampling Schemes
	Date	:	Tuesday, April 26, 2005
5.	Speaker	:	Dr. Ibrahim Rahimov
	Title	:	On a Stochastic Model for Continuous Mass Population Growths
	Date	:	Tuesday, May 10, 2005
6.	Speaker	:	Mr. Muazu Ramat Abujiya
	Title	:	An Overview of Statistical Analysis Using Excel
	Date	:	Tuesday, May 17, 2005
7.	Speaker	:	Mr. Yaman Khaeruzzaman (ICS Dept. KFUPM)
	Title	:	Overview of the Meau-Based SAS 9 Software and Its use in Analyzing Classroom Exams
	Date	:	Tuesday, May 24, 2005

Physics

1. Speaker : Dr. E. Hegazi

Topic : Novel laser-based apparatus for identifying spilled petroleum oils

Date : May 202005
2. Speaker : Dr. M.I. Al-Jarallah

Topic : The Secrets of Atomic Radiation

Date : March 23, 202005

3. Speaker : Dr. M.I. Al-Jarallah
 Topic : Man and Natural Radiation
 Date : April 23, 2004

4. Speaker : Dr. M.I. Al-Jarallah
 Topic : Indoor Radon Concentration in Nine Saudi Cities
 Date : March 23, 202005

5. Speaker : Dr. E.E. Khawaja
 Title : Thin Film Formation by Physical Vapor Deposition (PVD):
 Problems Faced and their Remedies
 Date : 20 February 202005

6. Speaker : Dr. A.K. Aksoy
 Title : Selected Industrial Applications using Neutron Activation
 Analysis (NAA) & - Natural Gamma Rays Spectroscopy
 (NGRS)
 Date : 06 March 202005

7. Speaker : Dr. H. Mavromatis
 Title : A Simple Algebraic Equation with Generalization
 Date : 27 March 202005

8. Speaker : Dr. F.Z. Khiari
 Title : Safety and Security of Radioactive Sources
 Date : 03 April 202005

9. Speaker : Dr. M. Aslam Khan
 Title : Some Peculiarities of Glow Discharges in Ar - O₂ Gas
 Mixtures: A Materials Processing Perspective
 Date : 01 May 202005

10. Speaker : Dr. Anan Al-Karmi
 Title : Radiation: Cause and Cure of Cancer
 Date : 08 May 202005

11. Speaker : Dr. A. A. Naqvi
 Title : Measurement of Lime /Silica Ratio in Concrete Samples
 using PGNAA Technique
 Date : 15 May 202005

12. Speaker : Mr. Abdu Al-Aswad
 Title : Laser Cooling,
 Date : 29 May 202005

13. Speaker : Mr. Ismail Al-Dahlawi
 Title : Estimation of GFR (Glomerular Filtration Rate)
 Date : 29 May 2005

College of Environmental Design

City & Regional Planning Department

1. Speaker : Dr. Adel Aldosary
Title : KFUPM Land Use Map: KFUPM Master Plan Project, Phase II
Date : March 2005
2. Speaker : Dr. Adel Aldosary
Title : The Master Planning Process: Critical Issues: Presented to Kuwait University New Campus Master Plan: Update and Critical Issues Workshop
Date : April 11, 2005
3. Speaker : Dr. Adel Aldosary
Title : Towards an Updated Master Plan for KFUPM: Presented to Kuwait University New Campus Master Plan: Update and Critical Issues Workshop
Date : April 11, 2005

Information & Computer Science

1. Speaker : Dr. Emad El-Sebakhy, Asst. Prof., ICS Department
Title : Functional Networks for Science & Engineering
Date : 14 March, 2005
2. Speaker : Dr. Farag Azzedin, Asst. Prof., ICS Department
Title : Supporting Time-bounded Services in Wireless LAN
Date : 18 April, 2005
3. Speaker : Mr. Yusuf Sharif Hassan, RA, ICS Department
Title: Measuring Software Architectural Stability Using a Retrospective Approach
Date : 2 May, 2005
4. Speaker : Mr. Said Bukhaitan, MS Student, ICS Department
Title: Using Artificial Neural Network to Improved Roll Force Prediction in Hot Steel Rolling Mills
Date : 16 May, 2005
5. Speaker : Mr. Shahid Hussain, RA, ICS Department
Title: Differentiation Mechanisms for Supporting QoS in IEEE 802.11 Wireless LANs
Date : 23 May, 2005

Systems Engineering Department

SPEAKER : Mr. Farooq Khan and Mr. Zulfigar Naushad (Siemens Ltd.)
TOPIC : “An Introduction to Two Siemens Automation Solutions: SIMATIC PCS7 and XHQ”
DATE : March 08, 2005

SPEAKER : Mr. Lahouari Ghouti (ICS Dept.)
TOPIC : “Information-Theoretic Framework for Image Watermarking Using Balanced Multiwavelets”
DATE : March 15, 2005

SPEAKER : Dr. Othman Taha (Saudi Aramco, Dhahran)
TOPIC : “Application of Advanced Process Control Technologies and Performance Monitoring in Saudi Aramco Refineries and Gas Plant Units”
DATE : April 19, 2005

SPEAKER : Prof. Hans D. Mittlemann (Arizona University, U.S.A.)
TOPIC : “PDE-Constrained Optimization”
DATE : May 17, 2005

- OFFERED BY DEPARTMENT FACULTY:

SPEAKER : Prof. Hosam Emara Shabaik
TOPIC : “State Estimation for Leak Detection and Isolation”
DATE : February 28, 2005

SPEAKER : Dr. Muhammad Al-Salamah
TOPIC : “Optimization Modeling of Energy Systems: An Example of an Across-Border Natural Gas Transmission Network”
DATE : March 03, 2005

SPEAKER : Mr. Rami Afif As’ad
TOPIC : “Optimizing Inventory Decisions in a Three Stage Supply Chain with Perfect and Imperfect Production Processes”
DATE : May 24, 2005

13. LECTURES AND SEMINARS GIVEN BY INVITED GUESTS FROM OUTSIDE THE UNIVERSITY

College of Sciences

Chemistry Department

1. Speaker : Mr. Mohammed A. Al-Moniee, Saudi ARAMCO,
Topic : Optimization of Microbial Control in a Maturing
Saudi Arabian Oil field"
Date : 12th October, 2004
2. Speaker : Dr. Ihsan Al-Tai, R & D ,Saudi Aramco
Topic : Non-Intrusive corrosion Monitoring
Date : 22nd February, 2005
3. Speaker : Dr. Shraim, UAE
Topic : Separation Science: Speciation Analysis
Date : 15th March, 2005
4. Speaker : Dr. Mouiz, JIC, Jubail
Topic : High Temp Humidity Monitoring
Date : 29th March, 2005
5. Speaker : Mr. Humam Abdulmohsen, Aramco
Topic : Microbiology
Date : 10th May, 2005
6. Speaker : Dr. Ali Meshari, Saudi Aramco
Topic : Hydrocarbon + fraction
Date : 17th May, 2005
7. Speaker : Mr. Faizy Ahmad Kamal
Topic : Fundamentals of GC-MS
Date : 17 May, 2005
8. Speaker : Prof. Hassan Al-Swaidan
Topic : Determination of Some Toxic Metals In Schools
Playground Soil of Riyadh
Date : 1st June, 2005

Earth Sciences Department

1. Speaker : Prof. M.I. Jarallah (KFUPM, Phys. Dept.)
Title : Indoor Radon survey in nine Arabian cities.
Date : March 15, 2005 (Joint Seminar with the "Friends of the
Environment" group)
2. Speaker : Dr. Fatah Khiari (KFUPM, Phys. Dept.)
Title : NORM/TENORM (Naturally Occurring Radioactive

- Materials/ Technologically Enhanced Naturally occurring
Radioactive Materials
- Date : April 5, 2005
3. Speaker : Dr. Steve Franks (Saudi Aramco)
Title : Depositional and post-depositional controls of the
Unayzah reservoir
Date : April 26, 2005
4. Speaker : Dr. Steve Franks (Saudi Aramco)
Title : Depositional and post-depositional controls of the
Unayzah reservoir
Date : April 26, 2005
5. Speaker : Dr. Steve Franks (Saudi Aramco)
Title : Practical applications of formation water chemistry. Pt. I.
Date : May 10, 2005
6. Speaker : Dr. Bassam Al-Tawabini (KFUPM RI, CAPS)
Title : Remediation options of MTBE-contaminated soil &
groundwater
Date : May 17, 2005 (Joint Seminar with the "Friends of the
Environment" group)
7. Speaker : Mr. Hassan Ahmed Hassan (KFUPM RI, CPM)
Title : The Difficult Dolomite
Date : May 23, 2005
8. Speaker : Dr. Steve Franks (Saudi Aramco)
Title : Practical applications of formation water chemistry. Pt. II.
Date : May 31, 2005

Mathematics Department

1. **Prof. A.H. Siddiqi**, “Mathematical Models for Modeling Price Fluctuations of Financial Time Series”, First International Conference on Modeling Simulation and Applied Optimization, Sharjah, UAE, February 1-3, 2005.

Thesis Defense

1.	Speaker	:	Mr. Rafiqul Islam (M.S)
	Title	:	Approximation by Wavelets and Walsh Type Wavelet Packet Polynomials
	Date	:	Tuesday, May 17, 2005
2.	Speaker	:	Mr. Hussain Y.A. Al-Hammali (M.S)
	Title	:	Purity of Moudles and Related Concepts
	Date	:	Sunday, May 29, 2005
3.	Speaker	:	Mr. Zeid Al-Muhammed (Ph.D)

	Title	:	On Some Seismic Inverse Problems
	Date	:	Wednesday, June 1, 2005

Physics

1. Speaker : Mohammed Said (Hail Community College)
Title : Quantum Dot Atoms
Date : 1 March 202005
2. Speaker : Dr. I.M. Wazeer (Chemistry Department)
Title : Solid-state NMR; Principles and Applications
Date : 13 March 2005
3. Speaker : M. Dawoud (Electrical Engineering Department)
Title : Radio Frequency Radiation and Human Exposure
Date : 20 March 2005
4. Speaker : Mr. Lahouari Ghouti (ICS Department)
Title : The “Holy Grail” of Content-Based Classification, Search,
and Retrieval of Multimedia Content
Date : 17 April 2005
5. Speaker : Dr. G. Korvin (Earth Sciences Department)
Title : The mysterious cementation exponent
Date : 24 April 2005
6. Speaker : Mr. Shoaib Quraishi (KFUPM Library)
Title : KFUPM Library E-Resources and Services
Date : 10 May 2005
7. Speaker : Mr. B. Gruzza
Title : InP (100) Surface Nitridation: a Study by Electron
Spectroscopy
Date : 17 May 2005
8. Speaker : Mr. Scott Miller
Title : A Critical Need: Nondestructive Testing within Saudi
Aramco
Date : 22 May 2005