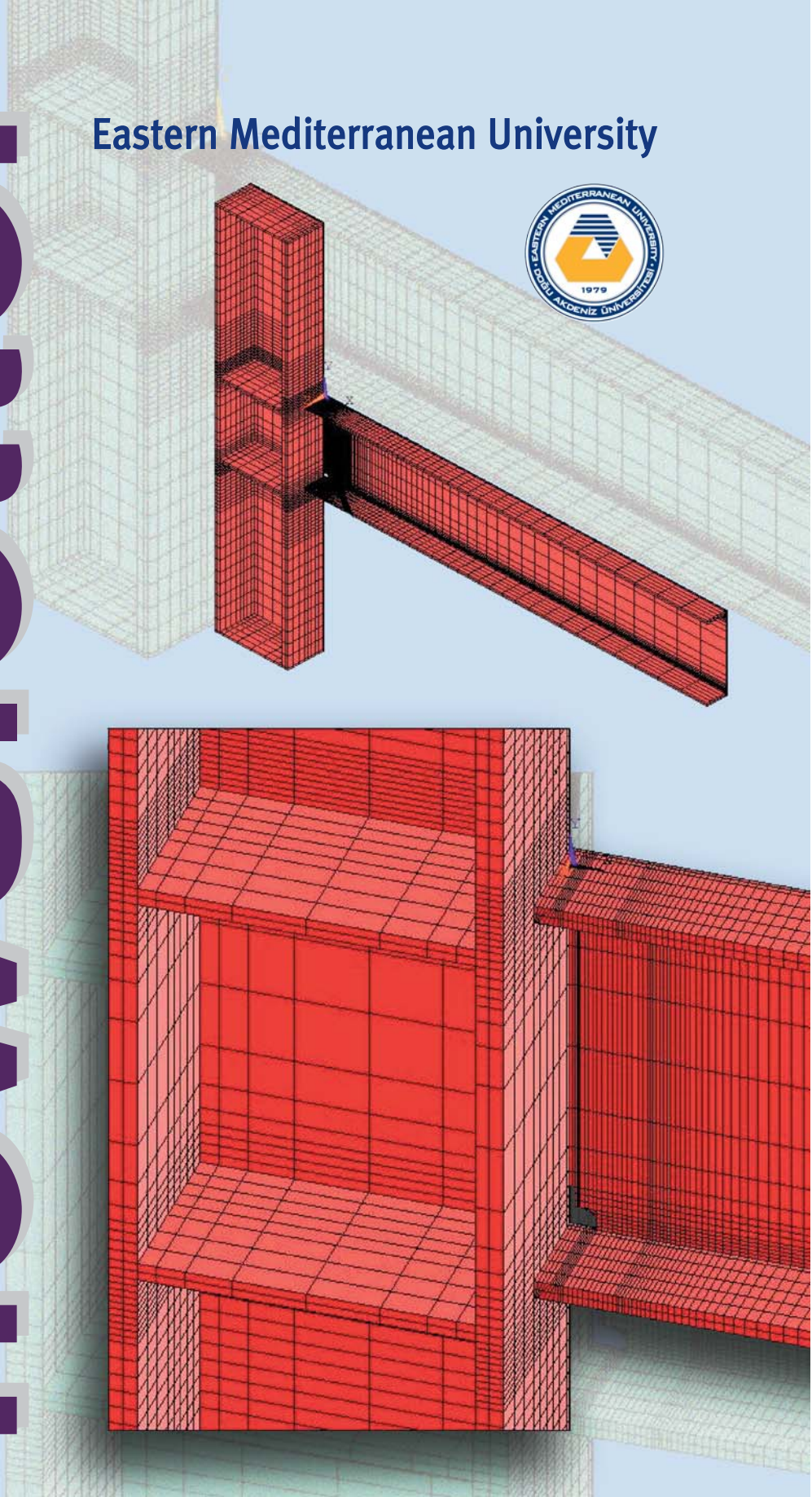


# research newsletter

Eastern Mediterranean University



Steel Beam-to-Column Connections:  
A new structural approach to minimize  
damage during earthquakes.

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Dear Colleagues,

We are happy to bring this third issue of 2008 to the EMU community. We hope you have enjoyed the summer season and we wish you a productive fall semester. As the newsletter team, we have been working on developing new ideas and ways for conveying information on the research of our academic community to our readers.

In this issue, you will find in addition to our *News Highlights*, *Research Spotlights* and *Student Research Profile* sections, a brand new section, *Interview with an EMU Researcher*. In this new section, we plan to give particular emphasis to the research of our graduate students. We hope to depict the high quality of graduate research going on at EMU with two specific goals in mind. Firstly, we would like to draw attention to such students as role models for our current EMU undergraduates. Secondly, we would like to attract new students from local and international communities to join the EMU research family. Our first interview is with Habib Mazharimousavi, a recent graduate of the Physics Department.

We continue to bring interesting ongoing research projects to your attention beginning with civil engineer Mürüde Çelikağ who details her research on steel beam-to-column connections, which is of interest not only for Cyprus but also for all countries in earthquake zones. We then turn to Michael Walsh of the Department of Archaeology and Art History, who has completed his long-term research on British artist C. R. W. Nevinson. Lastly, Tourism graduate student Olusegun Olugbade discusses his research on how the work environment influences the productivity of hotel frontline employees.

I hope you will enjoy reading this issue. Many thanks go to all those who have contributed to this latest issue of the EMU Research Newsletter.

With best regards,

Bahar Taneri

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### Research @ EMU

#### ■ A Recent Book by EMU Center for Cyprus Studies

The latest publication of EMU Center for Cyprus Studies on Unforgettable Cypriot Turks came out in July 2008. The 319 page book, edited by Ülker Vancı Osam, is the by-product of a two-day symposium held by the Center for Cyprus Studies in October 2006, featuring M. Necati Özkan, Faiz Kaymak, and Kadriye Hulusi Hacıbulgur. M. Necati Özkan is known as

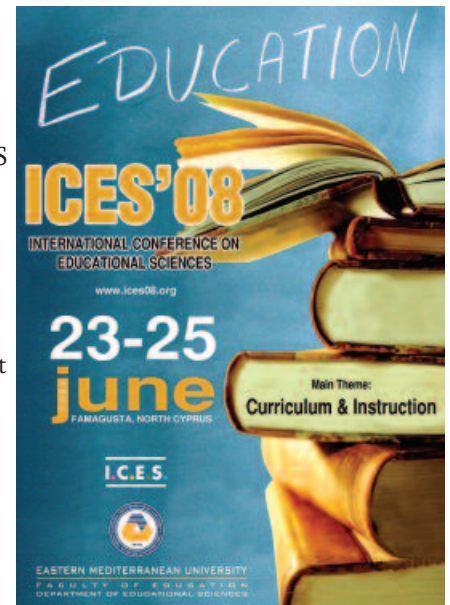


one of the figureheads of Turkish nationalism in 1930s in Cyprus. In addition to his achievements in the arena of politics, he was an entrepreneur in various fields throughout his life. Faiz Kaymak, another political leader in the 1950s, worked as a teacher for 16 years. Then, he actively took part in politics. He was the first chairman of the Turkish Federation of Turkish Cypriot Associations and Organizations. Kadriye Hulusi Hacıbulgur was a highly devoted teacher who contributed to the Turkish society's education and welfare for many years starting from 1920s. She was also the first woman representative elected to the Turkish Community Assembly in Cyprus in 1960. The book is in Turkish and is comprised of 18 papers presented at the symposium to critically evaluate and appreciate the contributions of these three distinguished people to the social and political history of Cyprus.

#### ■ EMU Hosts an International Conference on Educational Sciences

The International Conference on Educational Sciences, ICES 08, was organized by the Eastern Mediterranean University, Faculty of Education, Department of Educational Sciences. The conference was held at the Salamis Bay Hotel in Famagusta

during 23-25 June 2008. This conference had two significant aspects. First, a platform was organized for a diverse group of researchers, scholars, and educators to enable them to present and discuss their experiences, observations and common issues. Second, the conference gave the opportunity to over 400 scholars from other countries to visit and experience North Cyprus. Scholars from Canada, Czech Republic, England, Iran, Kuwait, New Zealand, Nigeria, North Cyprus, Pakistan, Russia, South Africa, Turkey, United States of America and Venezuela participated in ICES 08. In addition, the audience included over a hundred primary and secondary school teachers from North Cyprus. The conference had a broad scope of themes related to educational sciences. The main theme of the conference was curriculum and instruction, while sub-themes were curriculum development, instructional design, educational systems, teacher training, educational psychology, educational philosophy, measurement and evaluation, classroom management, educational administration, educational technology and materials development, guidance and psychological counseling, and quality management and organization. Conference sessions ran simultaneously in eight different halls. Around 300 participants presented their research in these fields and around an additional 200 attendees listened and discussed the educational issues and findings. Presentations were conducted in two languages; 189 presentations were in Turkish and 115 were in English. ICES 08 hosted two prominent keynote speakers from Turkey. Meral Aksu from the Faculty of Education, Middle East Technical University, talked about the changing roles of faculties of education and teachers. Mehmet Durman of Sakarya University conducted his speech on the national quality assurance and qualifications framework in higher education. EMU Faculty of Education dean Necdet Osam, Department of Educational Sciences chair Bekir Özer, ICES 2008 organizer Hüseyin Yaratın and associate organizer Hamit Caner proudly announce that the conference was a great success and that they are already working toward the next International Conference on Educational Sciences.



## ■ EMU represented at EUROPLAT

The 3<sup>rd</sup> European Network for Psychology Learning and Teaching (EUROPLAT) meeting was held in Berlin, Germany in July 2008. EUROPLAT addresses educational, institutional and quality issues with European psychology education and is supported by the European Union's Education, Audiovisual and Culture Executive Agency (EACEA). EUROPLAT has been established to promote excellence in psychology teaching throughout the European Community. The network aims to enhance the quality of teaching and student learning within psychology by conducting analysis and research, providing professional development opportunities, and facilitating collaboration and cooperation amongst European psychology educators. Toward this aim, twenty seven partners including EMU Psychology Department, represented by department chair Biran Mertan, came together in Berlin. Several important discussions regarding the Psychology curriculum were made. A division of labor between the partners was decided for several functions such as regional hub and spoke implementation, analysis and research, professional development opportunities and communications. EMU Psychology department chair Biran Mertan is a member of the analysis and research team. During the EUROPLAT meeting partners worked on "An International Survey of Psychology Teaching Preparation and Experience". This survey will be administered to teachers who are in their first three years of teaching. EUROPLAT partners plan to meet again next year during the 11<sup>th</sup> European Congress of Psychology (ECP2009) in Oslo, Norway, to discuss further developments and accomplishments toward promoting excellence in the teaching of Psychology throughout the European Community.

## ■ Quality Management Progresses at EMU

EMU President's Office strives toward achieving an all-campus Quality Management System at the University. Efforts to this extent have resulted in four new ISO 9001:2000 certificates for EMU. National Quality Assurance (NQA) Global Assurance, which certifies its customers' quality performance according to world-wide accepted criteria, has conducted inspections and awarded four new ISO 9001:2000 certificates to EMU Primary School, Eastern Mediterranean College, Eastern Mediterranean Center for Continuing Education, and Housing and Loading Office. Certificates were received on 31 July 2008. EMU previously was granted the same Quality Management Systems document in 2005 for the President's Office, Board of Trustees, Senate, Technical Affairs Directorate, Dormitories Directorate, Cleaning Office and Security Office. President Ufuk Taneri announced that her team's quality management efforts will continue in order to further improve the high quality educa-

tion and the high level of student satisfaction at EMU. Ekrem Gengizoğlu, director of EMU Total Quality Management Center, announced that in line with the strategic plan of the EMU President's Office, efforts to achieve ISO 9001:2000 certificates for all units of EMU will continue. The Center is currently working on starting the inspections for four additional units; Sports Activities Directorate, Personnel Office, Computer Center, and Control Office with the aim of obtaining ISO 9001:2000 certificates by April 2009. Gengizoğlu announced that the next units are planned to be Registrar's Office, Accounting Office, Purchasing and Inventory Control Office, and Transportation Office.



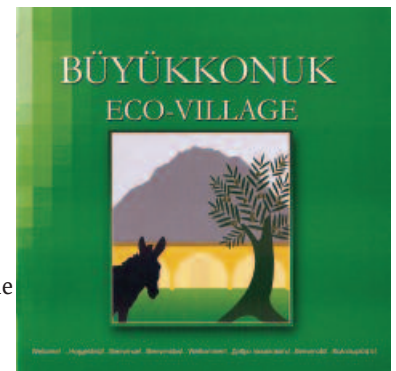
President Taneri with NQA Global Assurance Inspectors and EMU Total Quality Management Center Members

## ■ EMU Researchers Work Towards Making Büyükkonuk an Eco-Village

*Landscape-Level Resource Illustration and Village Center Enhancement for Büyükkonuk Village*, a research and development project of Urban Research and Development Center (URDC/KENT-AG) of EMU, funded by The United States Agency for International Development (USAID) was recently completed. The project aimed at promoting the eco-tourism potential of Büyükkonuk village and provides a prototype for other villages in North Cyprus.

Büyükkonuk (Komi Kebir) is one of the unique villages of North Cyprus, where traditional village life has been continuing due to its rich agricultural and eco-touristic potential.

Büyükkonuk with its unique geographical location is particularly important for tourism in Karpaz Peninsula. Considering the socio-economic structure of the village and its tourist attraction potential, Büyükkonuk was chosen as a



Büyükkonuk Eco-Village Brochure Cover



URDC/KENT-AG Team Members

suitable village to perform research and development for Agro and Eco-Tourism. The project brought together researchers from different fields such as architecture, topography engineering, urban planning and landscape architecture, and international experts of USAID for economy and eco-tourism. Principal researcher Derya Oktay of EMU URDC/KENT-AG coordinated both the Landscape-Level Resource Analysis Team and the Village Center Enhancement (Revitalization) Team for this project. Landscape-Level Resource Analysis Team worked toward preparation of maps with Geographic Information Systems (GIS). In addition, this team developed the Büyükkonuk Eco-Village Brochure. Landscape-Level Resource Analysis Team consisted of EMU members Senih Çavuşoğlu, Fodei Conteh, Ehsan Daneshyar, Can Kara, Burak Keşkek, Reza M. Kia, and Aslı Özgörün. Bülent Potak of Homeland Construction company worked as the assistant coordinator for the team. Technical service for GIS applications was provided to the team by CyprusArc company. In parallel, Village Center Enhancement Team, formed by Ehsan Daneshyar, Reza M. Kia, and Aslı Özgörün, worked toward revitalization of the village by conducting interviews with local authorities, inhabitants and visitors. In addition the team was guided by experts in economics and eco-tourism.

## Upcoming Research Events

### ■ Gender at the Crossroads: Multi-disciplinary Perspectives

EMU Center for Women's Studies announces The 3<sup>rd</sup> International Conference on Women's Studies, to be held at EMU between 20-22 April 2009 under the title of *Gender at the Crossroads: Multi-disciplinary Perspectives*. As stated in the title, the conference aims at bringing together specialists and academicians from various disciplines in the social sciences and related subjects regarding women/gender studies.

Organizers are proud to announce the Head of the Department of Media and Film of Sussex University, United Kingdom, Sue Thornham as the keynote speaker. Sue Thornham will share her research on feminism and its application in cinematography. There are three main conference panels classified under the titles of Representation/Visibility/Space, Activism, and Research/Theory. During the Representation/Visibility/Space panel, topics such as Media and Popular Culture; Poverty and Social Exclusion; Women in Public and Private Spaces; Borders, Migration and Gender/Women; and New Slavery and Women Trafficking will be covered. Under the Activism title Gender/Women topics will be discussed within the contexts of Conflict, War, Militarism, Ethnicity, Nationality, Race, Religion, Spirituality, and Environment. Methods and Methodologies in Gender/Women Studies, and New Paradigms in Gender/Women Studies issues will be covered during the Research/Theory panel. Language of the conference will be both English and Turkish. The detailed program of the conference and further information can be obtained via <http://cws.emu.edu.tr/GCR2009>.



### ■ Mediterranean Worlds: Cultures of Interpretation

An international conference has been jointly organized by three departments of Faculty of Arts and Sciences; Archaeology and Art History, English Literature and Humanities, and History. The conference, titled *Mediterranean Worlds: Cultures of Interpretation*, will focus on the cultural variety of the Mediterranean region, which brings together three of the world's continents, Europe, Asia and Africa, through forming an interdisciplinary platform for academicians. Within such a huge territory, together with its history, cross-cultural affiliations have given rise to various interpretations about life and beyond. Such affiliations are embedded in religion, art, literature, and every means of life. Mediterranean Worlds: Cultures of Interpretation will be held at EMU during 27-29 May 2009, and a variety of panels are suggested for those who would like to participate. Further information can be found at <http://med-worlds.emu.edu.tr/>.



## ■ The 5<sup>th</sup> Symposium of the Center for Cyprus Studies on Unforgettable Cypriot Turks

The Center for Cyprus Studies is organizing the 5<sup>th</sup> Symposium on Unforgettable Turks during 6-7 November 2008, in the EMU Faculty of Architecture building. This event will feature architect Ahmet Vural Behaeddin and artist Ali Atakan, two distinguished names who are remembered in the Turkish Cypriot community with their memorable work. Ahmet Vural Behaeddin (b.1927, d.1993) received his degree in architecture from İstanbul Technical University in 1951. After working as an assistant for the architectural firms abroad, he returned to Cyprus and designed many buildings here (Müdüroğlu housing estate, Turkish Girls' Lycee, Toros residence, among many others), which are still well-known for the nature of their structural forms and materials. Today his highly articulated designs are being closely studied by prospective architects at the universities. Ali Atakan (b.1940, d.2007) studied arts at Gazi Teacher Training College, Ankara, Turkey. He worked as an art teacher at schools in Cyprus between 1962 and 1992, during which he hunted quite a few new talents, guided and trained them. Today many well-known artists appreciate Ali Atakan as their first instructor. In addition to his active contribution to the Turkish Cypriot Arts Society in many ways, over the years Ali Atakan had many solo and group exhibitions both in Cyprus and abroad. The papers to be submitted at the symposium will discuss and evaluate the significance of these two selected personages, by making reference to their lives and works from the perspectives of 'professionalism', 'modernity', and 'locality', keeping in mind the social and political peculiarities of the period they lived in. In addition to the paper presentations, there will be a number of exhibitions as well to add a visual component to the event throughout the symposium days. The Center for Cyprus Studies has been organizing the Unforgettable Cypriot Turks symposium series every two years and publishing the proceedings since 1999 with an intention to create written sources on the fading features of the past. In the earlier symposia the following people have been studied: Niyazi Berkes, Hafız Cemal Lokmanhekim, Mehmet Aziz, Alpay Kelâmi, Mehmet Zekâ, Fadıl Niyazi Korkut, Osman Örek, Nevzat Karagil, M. Necati Özkan, Faiz Kaymak, and Kadriye Hacıbulgur. Further information on how to participate in the 5<sup>th</sup> Symposium on Unforgettable Cypriot Turks can be found at <http://www.emu.edu.tr/daukam>.

## ■ 2<sup>nd</sup> International Conference on Security of Information and Networks

The 2<sup>nd</sup> International Conference on Security of Information and Networks (SIN 2009) is scheduled to take place at EMU during 29 September – 3 October 2009. SIN 2009 is jointly

organized by the EMU Department of Computer Engineering and the following institutions: Department of Information Security, Southern Federal University (Taganrog, Rostov, Russia), Department of Computing, Macquarie University (Australia), Cylab (Japan), and Carnegie Mellon University (United States of America). In succession to the successful SIN 2007, SIN 2009 provides an international forum for presentation of research and applications of security in information and networks. This event aims to convene a high quality, well-attended, and up-to-date conference on scientific and technical issues of security in information, networks, and systems. SIN 2009 features both contributed and invited papers. In addition special sessions, workshops, and tutorials on theory and practice will be held. Organizers invite all interested parties to attend this event. For submission, due dates and updated information, please refer to <http://www.sinconf.org> or contact EMU Department of Computer Engineering's Atilla Elçi at [atilla.elci@emu.edu.tr](mailto:atilla.elci@emu.edu.tr).

## Arts @ EMU

### ■ EMU Music Department Members Featured in International Music Festival

Two members of the EMU Faculty of Arts and Sciences, Music Department were featured in the 12<sup>th</sup> International Music Festival which took place in Bellapais, Girne, North Cyprus. Marc Heeg, pianist, and Nicolas Deletaille, cellist, presented a concert of French and Belgian music to a full capacity audience on 4 June 2008. Following their performance of the final work, Franck's famous sonata, the audience leapt in unison to a standing ovation, shouting their enthusiasm. Among the audience were guests from the international diplomatic corps and TRNC government, as well as many members of the academic community. Organizers of the festival proclaimed it as one of the most successful concerts in the festival's history.

# Steel Beam-to-Column Connections to Minimize Structural Damage during Earthquakes

By Mürüde Çelikağ  
Department of Civil Engineering  
Faculty of Engineering



Mürüde Çelikağ

Seismic resistant design is a must for minimizing the degree of damage to structures during an earthquake and hence reducing the number of casualties. Beam-to-column connection design is one of the most important parts of the seismic design of structures. Over the years researchers placed great emphasis on finding ways of improving the strength and ductility of connections against seismic loading. In practice, even now, there are engineers and construction workers who do not realize the importance of adequate design and proper construction of the beam to column connections.

In developed countries, the connection detailing for reinforced concrete framed structures is mainly carried out by the draughtsman and the steel connection design is done by the fabricator. Therefore, university undergraduate civil engineering curriculum does not concentrate on the design and detailing of the beam to column connection. This gives the impression as if connections are not the most important parts of the building. On the contrary, particularly for

structures in earthquake zones, the behavior of connection is very important. Hence, in developing countries, where engineers often get involved in the preparation of the civil engineering drawings, they pay special attention to providing the correct detailing for the reinforced concrete beam to column connection. As for the steel beam to column connection, they need to be properly designed so that they are strong and ductile enough when subject to earthquake loading.

Currently, together with my PhD student Amir Ahmad Hedayat in the Department of Civil Engineering, EMU, I am carrying out a project aimed at introducing a new modified steel beam-to-column connection that has adequate strength and ductility and can easily be used for new and existing buildings. We have attained our goal by opening some voids at the beam web. We have modeled three pre-tested post-Northridge connections using finite element method and we have applied the proposed methods to their beams. In this article, I describe our results which show that the proposed methods can increase the ductility and strength of welded connections to be used in seismic regions. In order to detail our newly designed connections, first I must introduce the post-Northridge connections.

The 1994 Northridge earthquake caused widespread damage to steel moment-resisting frames including various brittle fractures in beam-to-column welded moment connections.

The earthquake prompted the initiation of new research programs that investigated the causes of these fractures and proposed changes to design procedures. Figure 1 shows the configuration of a typical pre-Northridge connection. The modified pre-Northridge connections use smooth weld access holes, high fracture toughness weld metal and no backing bar at the bottom beam flange. However, the modified pre-Northridge connections did not achieve 3 percent plastic rotation as required by the seismic codes.

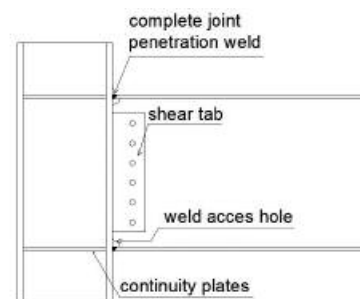


Fig. 1: Pre-Northridge connection

The modified pre-Northridge connection is now called the 'post-Northridge connection' and the modification of connection is achieved by either reinforcing the connection or weakening of the beam section. The connection can be strengthened using one of the following: triangular haunches (Fig. 2), cover plates (Fig. 3), straight haunches (Fig. 4), upstanding ribs (Fig. 5), lengthened ribs (Fig. 6) and side plates (Fig. 7). Weakening the beam section involves using reduced beam section (RBS) connections (Fig. 8), wedge beam



connections (Fig. 9) (Chia *et. al.*, 2006) and reduced beam web connections (Fig. 10) (Wilkinson *et. al.*, 2006). All these modifications can be applied to new or existing buildings.

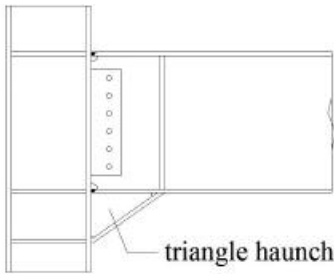


Fig. 2: Triangular haunch

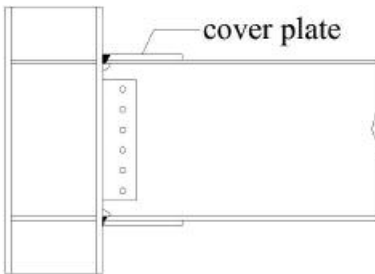


Fig. 3: Cover Plate

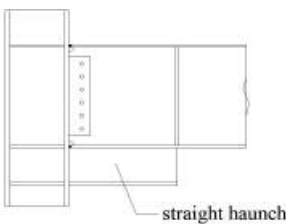


Fig. 4: Straight Haunch

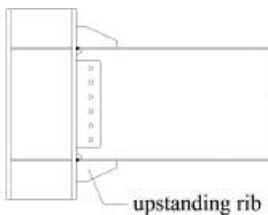


Fig. 5: Upstanding Rib

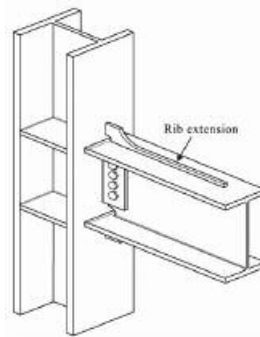


Fig. 6: Lengthened Ribs

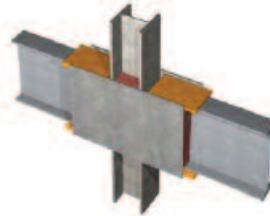


Fig. 7: Side Plates

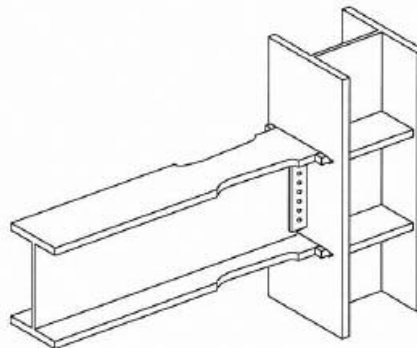


Fig. 8: Reduced Beam Section Connection

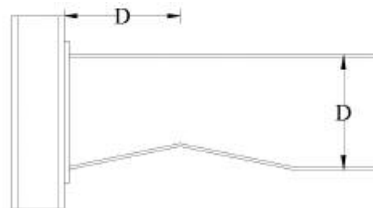


Fig. 9: Wedge Beam Connection

is usually more expensive and time consuming than weakening the beam sections, particularly when cover plates, standing ribs and side plate connections are used. These types of modifications require the breaking of concrete slab and the use of additional elements. When triangular or straight haunches are used they can be added beneath the beam's bottom flange which does not require breaking of the concrete slab. However, this method of stiffening sometimes leads to weak column-strong beam behavior (Chia *et. al.*, 2006) and it becomes necessary to break the concrete slab so that stiffeners can be added to the beam top flanges.

Among the weakening methods the most known one is the RBS connections. However, this type of connection becomes relatively costly due to the cut of flanges at four locations at each end, especially in the presence of floor slabs for rehabilitation purposes. Also in these connections cutting of flanges reduces the beam stability and increases the probability of beam lateral torsional buckling. In order to prevent the beam lateral torsional buckling, a simple and effective method 'wedge design' was proposed by Wilkinson and colleagues (Wilkinson *et. al.*, 2006). The joint detail has the form of a beam with a wedge removed from the web and the

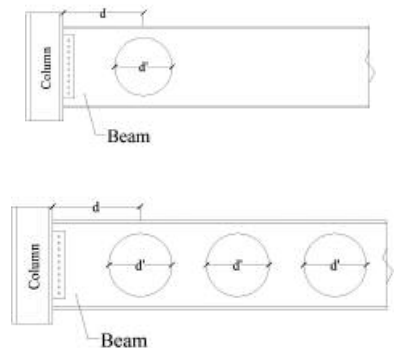


Fig. 10: Reduced Beam Web Connection

However, in the case of existing buildings, the strengthening of connections

flange is reattached to form a profile as shown in Figure 9. Two identical wedge design specimens with shallow beams and end plate connections were tested (Wilkinson *et. al.*, 2006). and connections achieved over 3 percent plastic rotation. The beam web was completely welded to the end plate. This helps to increase the connection ductility when compared to use of shear tab to transfer shear forces. Shallow beams often have high plastic rotational capacity even in the case of pre-Northridge connections.

Figure 10 shows the RBW connections proposed by Aschheim (Aschheim, 2000). The beam web is penetrated by a number of circular cross section voids. The size and spacing between the voids are designed as such to cause the shear yielding of the beam web along the beam span and to keep the connection in elastic region. Five RBW connections were tested under cyclic loading and adequate inter-story drifts of 6 percent were obtained. There is limited information available on this work, since it is a US patent.

In our study, we aimed to investigate the ability of the two proposed methods by Aschheim and by Wilkinson and colleagues to provide adequate connection ductility, strength and initial rotational stiffness using welded flange-bolted web connections with deep beams. New connection configurations are also proposed to achieve adequate connection strength and ductility. Our newly designed connections involve opening two parallel rectangular holes with filleted ends, opening circular holes on the beam and cutting wedges from the beam web close to the column face.

For these purposes, three post-Northridge connections, specimens SAC3, SAC5 and SAC7 of different beam heights tested by Stojadinovic (SAC/BD-00/01, 2000) were modeled by using general purpose finite element program ANSYS. In this process, a parametric study was done for each

of the works mentioned above to find out the best connection configuration for adequate strength and ductility.

Since the weakening of connections often causes the buckling of beam elements, the Riks method was used to perform nonlinear analyses. The analyses for monotonic behavior were conducted by applying a monotonic displacement load to the beam tip until a 3 percent plastic rotation was achieved, whereas the load history used in reference SAC/BD-00/01

was utilized for cyclic behavior. Figure 11 depicts the mesh of the finite element models of specimen SAC7. In order to verify the accuracy of the modeling of specimens SAC3, SAC5 and SAC7, the experimental and analytical results obtained from the finite element modeling were compared in terms of load and beam tip displacement. Figure 12 shows the agreement between the analytical and experimental results.

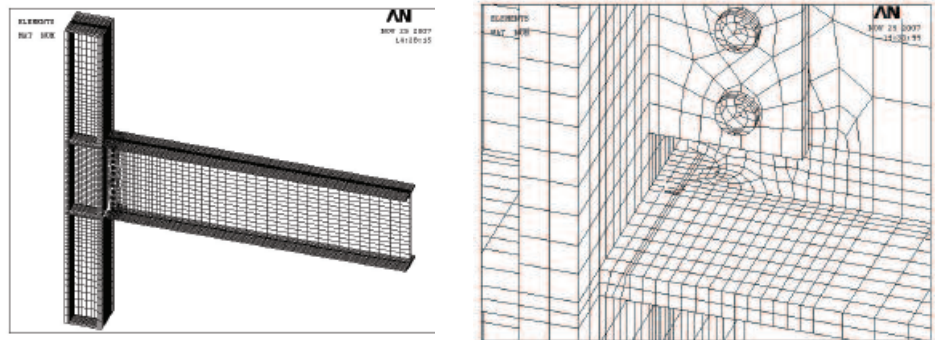


Fig. 11: Mesh of the finite element model of specimen SAC7

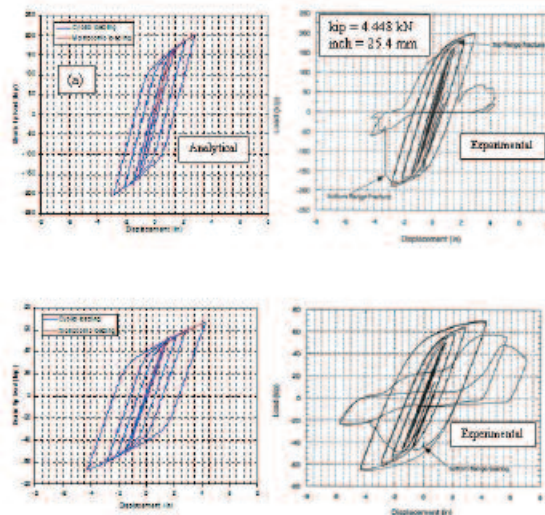


Fig. 12: Experimental and analytical results obtained from the finite element modeling

In general, the methods proposed in this research project have managed to improve the behavior of welded flange-bolted web connections with deep beams. More importantly, some of the proposed methods achieved the adequate connection ductility and strength required for seismic regions. Our future directions include experimental tests which are needed to verify the accuracy of the proposed methods. As part of this project, we are actively collaborating with the Department of Civil Engineering at Middle East Technical University (METU), Ankara, Turkey.

The experimental part of the study is expected to start in late October 2008 in the Structures Laboratory-Civil Engineering Department at METU with steel beam and column supplies provided by Arcelor Mittal, a Luxemburg based company.

Financial support for this project was provided both by the Ministry of Education and Culture, Turkish Republic of Northern Cyprus and by EMU.

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# British War Artist Trilogy Complete

By Michael J. K. Walsh  
Department of Archaeology and Art History  
Faculty of Arts and Sciences

I have completed a decade of research on C.R.W. Nevinson with the publication of my latest book *Hanging a Rebel: The Life of C.R.W. Nevinson* (Lutterworth Press, 2008, Fig. 1). This is the third of the three books I have written on the artist; the first being *C.R.W. Nevinson: This Cult of Violence* (Yale University Press, 2002, Fig. 2) and the second, *A Dilemma of English Modernism: Verbal and Visual Politics in the Life and Work of C.R.W. Nevinson* (University of Delaware Press, 2007, Fig. 3). The latter has been long listed for the Berger Prize for advanced research in British Art.

Throughout these three books I have reconstructed the turbulent life and poignant painting of C.R.W. Nevinson (1889-1946) and in so doing returned him to his proper place of prominence in British Art History. This was a controversial and high-profile English artist who, coming from famous and politically active parents, chose a career in painting in the modernist heyday of London before the Great War. By the time he was 22 years old he was (in)famous, and stayed that way for the rest of his life. Having been a member of one of the most dynamic classes ever to attend the Slade School of Fine Art, he left London for Paris and there shared a

studio with Modigliani throughout 1912 in abject poverty. Though impoverished financially he was intellectually wealthy, spending nights discussing politics with Lenin and rubbing shoulders with Picasso at the Louvre. But Paris could only hold him for so long and soon he gravitated towards an eye-catching and anarchic movement emanating from Milan; Futurism. Toasted, and vilified, as 'England's only Futurist' he, with his friends F.T. Marinetti and Gino Severini, caused riots in the art galleries and lecture theatres, offending a great many people (from the King to Morris Dancers) with manifestos and performances that called for the destruction of museums and universities. No-one could ignore the Futurists! But when the storm clouds of the Great War gathered in summer 1914 Nevinson left his bohemian days behind him, donned a uniform, headed to the Western Front as an ambulance driver, and there made his reputation as the modern artist of modern war. Whether nursing the wounded at Ypres, flying high over enemy lines in fighter aircraft (or suspended in a balloon), moving up and down the trenches at the Somme, or recording the preparations for the disastrous campaign at Passchendaele, Nevinson was there with sketchbook and pencil complete. Soon the British

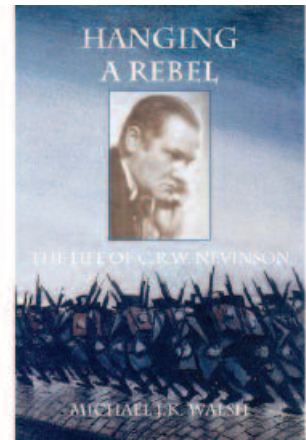


Fig. 1: Latest book on C.R.W. Nevinson

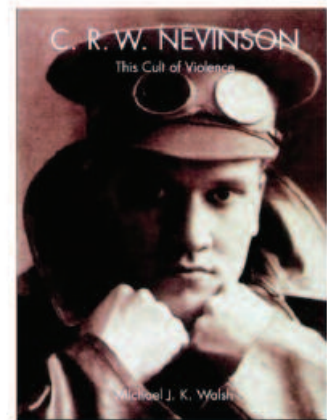


Fig. 2: First book on C.R.W. Nevinson

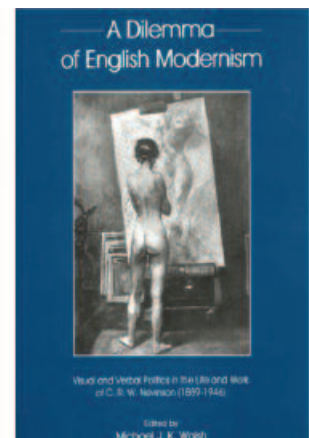


Fig. 3: Second book on C.R.W. Nevinson

government harnessed this talent, employing him as an Official War Artist in the great propaganda campaigns of 1916-1918, through which his work became known all over the world.

When the guns fell silent after the Armistice in 1918, far from becoming a 'war artist without a war', Nevinson headed for New York at the outset of the Jazz Age, to dance the Charleston, drink the cocktails and paint the flappers. In London, Paris and New York there was no artist more famous than C.R.W. Nevinson. As the 1920s gave way to the Great Depression of the 1930s, however, he became an outspoken critic of the establishment (who loathed him), and launched attacks on the Royal Academy, the Bloomsbury Group, H.G. Wells, George Bernard Shaw, T.S. Eliot, Ezra Pound, Aleister Crowley, James Joyce and other figures of the day. Descending into a manic depression, exacerbated by the death of his infant son, that made him consider and reconsider suicide, he mourned the inevitable future of Europe as Fascism took its grip on the mainland. Now he started to paint apocalyptic images of death and destruction and co-wrote a novel with Princess Troubetzkoy, *Exodus AD: A Warning to Civilians*, in which he

himself was the protagonist watching the final demise of London at the hands of airborne viral attacks. When in 1939 the Second War did start, he faced it with the cynicism of a man who had seen it all before.

In his twilight years the ex-Rebel was actually welcomed back into the fold, and became a full member of the New English Art Club, an Associate of the Royal Academy, a member of the Royal Institute of Oil Painters and *Chevalier de la Legion d'Honneur* in France. He died in his studio the year after the war ended at the age of 57 and was cremated with no service or ceremony. His obituaries remembered 'Nevinson was a rebel. He was at perpetual loggerheads with the respectable and conventional in art' (*Evening Standard*, 7 October, 1946); the *Liverpool Daily* honored him by suggesting he was 'one of the most provocative artists of the century' (*Liverpool Daily*, 8 October, 1946), while *The Scotsman* concluded its eulogy saying he was 'A rebel in art who lived to be acclaimed as a classic....' (*The Scotsman*, 8 October, 1946). But art had brought with it a lifetime of misery and so he instructed his wife, in his Last Will and Testament, to destroy any remaining works of art in his studio after his death. He was sub-

sequently forgotten.

In September 1942 Winston Churchill had written to Nevinson 'I am sure the young men who are fighting regard you as part of the England they defend.' (Churchill Archives Centre, Churchill College, Cambridge). In spending 10 years reconstructing this artist's life, and presenting it in three separate books, I have attempted to respect his work, both written and painted, and approach it with the same gravitas and centrality suggested by Churchill. Through this trilogy Nevinson has been returned to the heart of academic study pertaining to English culture in the first half of the twentieth century, after a 60 year silence.

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# An Examination of the Selected Outcomes of Work Engagement among Frontline Hotel Employees

By Olusegun A. Olugbade  
School of Tourism and Hospitality Management



Olusegun A. Olugbade  
(right) with Supervisor  
Osman M. Karatepe

In a world of intense competitive pressures, employees in boundary-spanning positions of the hospitality industry play a critical role in the provision of service quality. This is not surprising, because there is a high degree of interaction between frontline employees and customers and such employees spend much of their time dealing with customers' needs and requests (Karatepe & Baddar, 2006; Yavas *et al.*, 2008). There is mounting evidence that employees in the hospitality industry are confronted with heightened burnout (Ledgerwood *et al.*, 1998), which is "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people-work' of some kind" (Maslach & Jackson, 1981, p. 99) and that they report negative attitudinal and behavioral outcomes (Karatepe & Uludag, 2008; Yavas *et al.*, 2008).

The issues mentioned above are based on the findings of empirical studies in

*negative psychology*. A number of studies indicate that *positive psychology* has been largely neglected in the extant literature (Mauno *et al.*, 2007; Schaufeli & Bakker, 2004). Work engagement is considered to be the positive antipode of burnout (Schaufeli & Bakker, 2004). Engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli *et al.*, 2002, p. 74). Vigor refers to "high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties", while dedication is defined as "a sense of significance, enthusiasm, inspiration, pride, and challenge" (Schaufeli *et al.*, 2002, p. 74). As the final dimension of work engagement, absorption is defined by "being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work"

(Schaufeli *et al.*, 2002, p. 75). If work engagement is considered to be the positive antipode of burnout, then employees are likely to have positive outcomes such as job satisfaction, good performance, higher organizational commitment, and lower turnover intentions due to heightened vigor, dedication, and absorption. There are few empirical studies based on *positive psychology* in the tourism and hospitality literature (Karatepe & Bekteshi, 2008; Karatepe & Magaji, 2008; Pienaar & Willemse, 2008). Due to such a gap in the tourism and hospitality literature, very little is known regarding work engagement and its potential outcomes. In addition, evidence from developing countries regarding work engagement is still limited.

Using insights from the Job Demands-Resources and the Conservation of Resources models, we develop and test a model, which examines the selected outcomes of work engagement among frontline hotel employees in the four and five-star hotels of Nigeria. That is, we test the effects of vigor, dedication, and absorption on service recovery performance, job satisfaction, and turnover intentions. Such relationships are measured using LISREL 8.30 through path analysis (Joreskog & Sorbom, 1996). Nigeria is one of the developing sub-Saharan countries in the African continent. As the most populous country in Africa, Nigeria has more than 250 ethnic groups. English is the official language in the country and is widely used to make communication easier among different ethnic groups (Okpara, 2006). Despite the fact that Nigeria is an oil-rich country, it is still faced with political instability, corruption, and a high rate of unemployment (Karatepe & Magaji, 2008). In addition, the tourism and hospitality industry in Nigeria is still in its development stage (Karatepe & Magaji, 2008).

Together with my master thesis supervisor Osman M. Karatepe at the School of Tourism and Hospitality



Management, we are investigating work engagement among frontline employees in the Nigerian hotel industry. Such an opportunity has provided me with a full understanding of the importance of work engagement in frontline service jobs of the hospitality industry. Finally, by testing the relationships mentioned above, we believe that our study will make a contribution to the research stream of work engagement in the tourism and hospitality literature. We also believe that the results of our study will present useful implications for hotel managers in Nigeria.

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# Physics Graduate Student S. Habib Mazharimousavi



S. Habib Mazharimousavi

*During his 3-year graduate studies at EMU, Habib Mazharimousavi published a total of 14 different citation indexed articles. We asked him the formula for his success in graduate research.*

- **Where are you from? When did you arrive at EMU, North Cyprus? What were your initial thoughts and ideas when you first arrived?**

I am Iranian and came straight from Iran to North Cyprus in September 2005. The very first thing that I discovered when I first arrived was the humidity of the island. Then I remember seeing the EMU library and being very impressed with that. And soon I realized the warmth of the people here. Now looking back, I see that my first impression of Cypriots was true, in that they are indeed very nice people.

- **Please tell us a bit about your educational background before EMU.**

I finished both my Bachelor's and my Master's degrees in Iran at the University of Isfahan. My Bachelor's degree was in Applied Physics and my Master's degree was in Nuclear Physics. After I finished my Master's degree in 2000, I started working as a teacher at various universities of Iran. In 2005, I decided that teaching is not for me and that I wanted to do research.

- **What made you decide to go into the field of Physics?**

Actually my first choice was not Physics. I started the university with the intention of becoming an Electronic Engineer. I studied at this department for a year and during this period I realized that what I really wanted to study was Physics. So I started over and continued with Physics. I think

this was one of the best decisions I made in my life.

- **How did you decide to come to EMU?**

Before I came here, I took an exam in Iran for overseas studies. I was awarded a scholarship in Iran to go to McGill University in Canada with the condition of returning back and teaching in my home country. Since I knew what I wanted to do was not teaching, I decided not to pursue this opportunity. Right after this, I decided to come to EMU, as I had been hearing very nice things about this place from my friends ever since I was doing my Bachelor's.

- **Could you introduce your graduate study subject here at EMU for our readers?**

Once I came to the Physics Department, I met my PhD advisor Omar Mustafa and started working with him on Quantum Theory. I have learnt many things from him; especially how to conduct research. Our study was on quantum particle endorsed with position dependent mass. According to this direction of the theory, a quantum particle may have a mass that takes different values at different positions. Also we have contributed to extending the concept of Hermitian quantum theory to non-Hermitian quantum theory. This is still more a mathematical theory than physical, but in a short sentence I can say that the relation between Hermitian and non-Hermitian quantum theory is same as the relation between the real numbers and the complex numbers in mathematics. In these fields we worked together for two years and we published some papers. After this I had the opportunity to work on General Relativity and Gravitation with Physics Department Chair Mustafa Halilsoy. This is a very interesting branch of physics. Our research has been focused on the higher dimensional version of Einstein's theory and higher dimensional black holes. We believe that our space-time has more than four dimensions but we have disability to observe these extra dimensions. On this subject we have been working together for about a year and we have already published some of our results.

- **Overall you have published 14 different citation indexed articles throughout your graduate studies of 3 years at EMU. How did you manage to be so successful in a short period of time?**

I don't consider myself successful yet. I believe that I just started making some contribution to the field. I was lucky to meet my PhD thesis advisor Omar Mustafa and Physics

Department chair Mustafa Halilsoy who have provided me with knowledge and skills to get this far.

■ **When would you say that you would consider yourself successful?**

If one day my work is good enough to receive a Nobel Prize, I would consider myself successful. This has been my dream since my childhood.

■ **What motivated you during your studies at EMU?**

I am initially curious about my research subject and this is the main force driving my studies. In addition, I particularly would like to let people know, through my work, that there is significant research going on here. At EMU, I find enough academic support and stimulation to motivate me to carry on my research.

■ **Is there a specific event that you would consider as your most valuable experience at EMU?**

Ever since my Master's studies, I was interested in the topic of gravitation and meeting with Physics Department chair Mustafa Halilsoy, who works on this subject gave me the opportunity to work in this field. I consider this to be a very significant turning-point in my career.

■ **How would you say EMU has made a difference in your life?**

I can't deny that I have found myself here at EMU. Since I started my PhD at EMU, I have been supported by every person I met over here especially by the members of the Physics Department. I really appreciate all the encouragement over the years and can say that without EMU none of my achievements would have ever been possible.

■ **What interests do you have outside of your research?**

If I said that I had any, it would be a lie. I am spending most of my time on my research.

■ **What are your short-term plans after EMU?**

I defended my thesis on 8 of August 2008. I plan to stay here and continue my research on gravitation as a part-time member of the Physics Department.

■ **Where do you see yourself in 10 years from now? Will you consider teaching in addition to research?**

I am seriously considering settling here in Cyprus. Here there is a very nice and calm environment, which I believe is necessary for researchers in sciences. Of course, it depends on the opportunities I will come across, but if I had a choice I would only do research and have graduate students of my own.

■ **Do you have any messages for our prospective graduate students?**

I believe that anyone who seriously wishes to do research here could be successful. Because throughout my studies here I realized that there is a good communication here between faculty members and students, which makes a difference.

■ **Finally would you like to add anything else?**

I would actually like to get across two messages. First one is for prospective graduate students, I would encourage them to come to EMU and once they are here they will realize on their own that there is a good atmosphere here for research. My second message is for authorities, in order for research to advance at EMU, we are in need of financial support. Therefore research should be on top of the priorities. Last but not least, I would like to thank you for giving me this opportunity, for a researcher it is very important to get across to people about their research topic and experiences.

**WHY DON'T YOU...**

*...share this interview with your undergraduate students? Please direct them to <http://research.emu.edu.tr>.*



## Spring 2008 EMU Type-A Award Recipients

*In Spring 2008, EMU approved financial support for eight different Type-A research projects for a total of 81,402 US dollars. Following is the list of projects, principal investigators, researchers, specific amount granted per project and a short project overview. We congratulate our researchers and wish them continued success.*

■ **Project Director:** Işık Aybay (Computer Engineering)

**Researchers:** Yonca Aybay, Nil İrkoğlu Arkın, Ayşe Özverir, İldeniz Özverir, Sevdije Tokar

**Amount Awarded:** 11,877 USD

**Project Title:** @ Salamis - Computer and Internet Based Language Education

**Project Topic:** @ Salamis—Computer and Internet Based Language Education project aims at preparing a portal that presents simultaneous English Language education in order to satisfy the public desire to learn a second language and offer equal opportunities for people who live and work in rural areas. The portal will be available for use by EMU Preparatory School students, students and teachers of public schools, North Cyprus citizens and those who want to access to English Language education from outside of the country. Gathering students, teachers, and citizens by using advanced communication and computer technologies will be provided by distance education, internet based education techniques, and blended learning methods. Besides preparing the portal where the users can sustain their language education, it is also aimed that @ Salamis—Computer and Internet Based Language Education provides an environment to constitute a file in which the users can find their portfolios.

This research project consists of preparing a portal which provides an A1 and A2 level of the English Language education as stated at Common European Framework of Reference for Languages, and examinations, and serves as a complement to customary language certificates.

■ **Project Director:** Hasan Hacısevki (Mechanical Engineering)

**Researchers:** Uğur Atikol, Raheleh Nowzari, Murat Özdenefir

**Amount Awarded:** 11,000 USD

**Project Title:** Promoting Cogeneration as a DSM Measure for Holiday Accommodation Facilities in North Cyprus

**Project Topic:** Nowadays energy prices are increasing dramatically in the world. This increase causes some countries to have economical problems. Especially countries such as North Cyprus which rely entirely on imported fuels for their energy demands may have great problems in the future. So it is crucial to use energy efficiently and effectively. One way of using the energy efficiently and effectively is to install cogeneration (combined heat and power) plants. This happens by producing the electricity and the heat simultaneously. Usually efficiency for a power plant is 35%, but if we produce the electricity and heat simultaneously with a cogeneration plant its efficiency rises up to 80%. In North Cyprus, hotel buildings constitute the largest portion of the electricity demand of the commercial sector. Application of cogeneration systems could be an advantage to the hotel businesses and to the energy policy makers from both economic and environmental points of view. This project will be based on investigation of current cogeneration technologies and an assessment will be carried out to determine the feasibility of the cogeneration applications in North Cyprus hotels.

**Project Director:** Salih Katırcıoğlu (Banking and Finance Department)

**Researchers:** Tuğba Kandemir, Elif Şenyücel, Şenel Türksoy

**Amount Awarded:** 9,762 USD

**Project Title:** Environmental Destruction, Pollution and Degradation in North Cyprus, Evidence from Tourism and Construction

**Project Topic:** Environmental degradation (and/or destruction) and pollution are major threats for many countries as well as North Cyprus. Environmental entrepreneurship has arisen as a new concept in the relevant literature. It is defined as the creation of new products, services or organizations to meet environmental market opportunities. Pollution prevention, on the other hand, is also a new concept on the idea of environmental entrepreneurship. This study, for the first time, will investigate the importance, sources (reasons) and impacts of environmental degradation and pollution in North Cyprus as perceived by households and government authorities on the island. This will be linked with construction and tourism sectors that showed a tremendous development in housing and tourism based investments. Furthermore, policies and recommendations will be constructed for the general public and government authorities in North Cyprus.

■ **Project Director:** Nazım Mahmudov (Mathematics Department)

**Researchers:** Mehmet Ali Özarslan, Pembe Sabancıgil

**Amount Awarded:** 6,000 USD

**Project Title:** q-Parametric Positive Linear Operators

**Project Topic:** In this project two new q-parametric operators: q-analogue of the Szasz-Mirakjan operators and q-analogue of the Bliemann-Butzer-Han operators will be defined and approximation properties of these operators will be studied. Particularly, the project will focus on those properties of these q-parametric operators and related linear positive operators that are not analogues of the situation in the classical case. The main aim of the project is to prove direct local and global approximation results for newly defined operators.

■ **Project Director:** Şener Uysal (Electrical and Electronic Engineering)

**Researchers:** Hasan Demirel, Aykut Hoca'nın

**Amount Awarded:** 11,540 US

**Project Title:** Integrated Homeland Security Surveillance System

**Project Topic:** In this project, a novel module is proposed as the main building block of a surveillance system for homeland security applications. The proposed module houses processors, camera(s) and batteries rechargeable by solar energy. Conformal solar panel and antenna are mounted on at least two of its surfaces. At least one inclined surface for maximum sunlight exposure is required for the solar panel. Multi-beam property of the antenna together with the module side adjustment will cover a complete hemisphere which satisfies the line of sight communication at the desired microwave ISM band.

■ **Project Director:** Elvan Yılmaz (Chemistry Department)

**Researchers:** Bahar Taneri, Hasan Uludağ, Zulal Yalınca, Osman Yılmaz

**Amount Awarded:** 12,000 USD

**Project Title:** Modified Chitosans for Gene Delivery

**Project Topic:** Gene therapy is a new technique aiming to treat hereditary diseases or acquired diseases that are currently considered as incurable by conventional drug therapy. Gene therapy is based on gene delivery at specific cells in the body to replace malfunctional genes with functional ones. Carriers used for gene delivery are mainly of two types; viral and non-viral vectors. Even though viral vectors have more efficient gene expression, one of the significant disadvantages of viral delivery systems includes generation of immune responses against the expressed viral proteins. In attempts to overcome the problems of viral delivery systems, synthetic (non-viral) vectors have been developed. However, current non-viral vectors used could also lead to certain problems such as toxicity. Chitosan has been considered as a non-viral vector candidate for ideal gene delivery, because of its low toxicity, low immunogenicity, biocompatibility and biodegradability, in addition to its capability to form complexes with DNA. In this study, chemical modification on chitosan will be carried out to tailor a new non-viral gene carrier with optimum transfection efficiency, low toxicity and low immunogenicity.

■ **Project Director:** Osman Yılmaz (Chemistry Department)

**Researchers:** Hamit Caner, Hatice Hasipoğlu

**Amount Awarded:** 12,000 USD

**Project Title:** Chemical Modification of Chitosan by Attachment of Vinyl Monomers

**Project Topic:** Acquired by deacetylation of chitin, a very commonly found natural polymer in the world; 'chitosan' has biomedical uses due to its non-toxic biogenic structure. Chitosan is only soluble by diluted organic acids like formic acid, acetic acid, or lactic acid. This property of chitosan is limiting its wider usage. There has been a significant amount of research on chemical modification of chitosan, in order to fix this problem and increase its usage scope. Biogenic and nontoxic featured poly vinyl pyrrolidone is a hydrophilic polymer that is highly in use in biomedical fields. 4 vinyl pyridine is a polymer which easily polymerizes and has antibacterial features.

Attaching these monomers onto chitosan could create a positive affect on its solubility and its antibacterial feature. In this project, chitosan is planned to be modified by the attachment of 4 vinyl pyridine to this molecule. For this purpose, mainly UV, and if necessary, gamma sources will be used separately, and these two methods will be compared. The obtained products' solubility and swelling qualities will be tested, and a preliminary study will be done on the antibacterial quality of these modified products.

■ **Project Director:** Ping Zhang (Mathematics Department)

**Amount Awarded:** 7,223 USD

**Project Title:** Problems in Critical Point Theory and the Theory Braids

**Project Topic:** The project consists of two separate topics. Part 1 deals with the general theory of critical points of smooth maps of a manifold into another one of equal or lower dimension. If the codimension is small and the number of critical points is finite, the minimal number of critical points may be computed, with a characterization of all possible manifolds with the prescribed property. If the critical set is infinite, characterization of the size of the set in terms of its topological dimension and other possible homotopy-theoretical properties will be tried. In Part 2, the strategies of proofs in the recent papers on automorphism groups of surface braid groups by the project director will be employed to the study of analogue situations in other variations of braid groups. In addition, the geometric interpretations of various group-theoretical properties of these braid groups and their possible linear representations.

## ***INTERESTED IN EMU RESEARCH GRANTS ?***

*For information on how to apply for EMU research grants, please visit EMU Research Advisory Board's website at <http://research.emu.edu.tr>.*



## Recent Publications and Presentations (June 2008 - August 2008)

### ■ Journal Publications (SCI, SSCI, AHCI) ■

The journal publications listed here are those that are listed in Arts & Humanities Citation Index (A&HCI), Science Citation Index Expanded (SCI-Expanded), or Social Sciences Citation Index (SSCI). A search on ISI Web of Science was performed on 20 October 2008 to retrieve articles with at least one author having EMU affiliation. This list may not be comprehensive as some articles could be deposited to ISI after the query date.

Aliev RA, Aliev RR, Guirimov B and Uyar K. (2008) "Dynamic data mining technique for rules extraction in a process of battery charging." *Applied Soft Computing* 8(3): 1252-1258.

Amiralaei S, Uzun D and Icil H. (2008) "Chiral substituent containing perylene monoanhydride monoimide and its highly soluble symmetrical diimide: synthesis, photophysics and electrochemistry from dilute solution to solid state." *Photochemical & Photobiological Sciences* 7(8): 944-955.

Arhami M, Sarioglu F, Kalkanli A and Hashemipour M. (2008) "Microstructural characterization of squeeze-cast Al-8Fe-1.4V-8Si." *Materials Science and Engineering: A* 485(1-2): 218-223.

Baldan A and Tascioglu E. (2008) "Assessment of Theta-projection Concept and Fracture Cavitation." *Journal of Materials Science* 43(13): 4592-4606.

Celik T, Ozkaramanli H and Demirel H. (2008) "Facial Feature Extraction Using Complex Dual-tree Wavelet Transform." *Computer Vision and Image Understanding* 111(2): 229-246.

Chefranov AG. (2008) "Parameterized improved fast encryption algorithm for multimedia PIFEA-M." *IEEE Communications Letters* 12(6): 404-406.

Demirel H and Anbarjafari G. (2008) "Pose Invariant Face Recognition Using Probability Distribution Functions in Different Color Channels." *IEEE Signal Processing Letters* 15: 537-540.

Demirel H, Anbarjafari G, Sarioglu M and Erdem YA. (2008) "IRIS-JUDGE: PCA based Iris Recognition and Verification System." *Electronics World* 114(1867): 34-37.

Doukhnitch E and Salamah M. (2008) "General Approach to Simple Algorithms for 2-D Positioning Techniques in Cellular Networks." *Computer Communications* 31(10): 2185-2194.

Erdil E, Ilkan M and Egelioglu F. (2008) "An experimental study on energy generation with a photovoltaic (PV)-solar thermal hybrid system" *Energy* 33: 1241-1245.

Güven-Lisaniler F, Uğural S and Rodriguez L. (2008) "Human Rights of Migrant Women Workers in Janitorial Services and Night Clubs: A case of North Cyprus." *International Journal of Social Economics* 35(6): 435-448.

Hasanbulli M and Rogovchenko YV. (2008) "Asymptotic Behavior of Nonoscillatory Solutions to n-th Order Nonlinear Neutral Differential Equations." *Nonlinear Analysis-Theory Methods & Applications* 69(4): 1208-1218.

Hurol Y. (2008) "Beyond shelter; Anatolian Indigenous Buildings." *Open House International* 33(2): 93-94.

Kilincceker G and Galip H. (2008) "The effects of acetate ions (CH<sub>3</sub>COO<sup>-</sup>) on electrochemical behavior of copper in chloride solutions." *Materials Chemistry and Physics* 110 (2-3): 380-386.

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