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Dr. Bendimerad is a funding member and currently the Chairman of the Board of the Earthquakes and Megacities Initiative (EMI), a non-governmental international scientific organization based in the Philippines and focusing on developing methods and practices in urban disaster risk management and resilience. He is an active researcher, practitioner and educator with a focused interest in megacities and urban risk assessment and management, where he is credited with advancing both methodology and concepts. He is recognized by his peer as a driving force behind the global urban disaster risk reduction (DRR) agenda for more than two decades. He is also the IQ L W L D W R Cluster Cities Project, a global network of megacities officials, researchers, educators, professionals and advocates working together to reduce urban risk. He has developed scientific approaches for implementing participatory processes to build ownership, consensus and sustainability in urban resilience planning. He directed and completed several innovative large-scale urban DRR projects including the Risk Sensitive Redevelopment of Barangay Rizal, Makati, Philippines and the Risk Sensitive Land Use Plan, Kathmandu, Nepal, and the development of the local urban resilience plans for Metro Manila, Kathmandu, Amman, Pasig City, Quezon City, Mumbai, and Dhaka. The latter involved more than 100 stakeholders and an implementation team composed of more than 30 experts and specialists.

Dr. Bendimerad is the main author of the Disaster Risk Management and Resilience course for W K H : R U O G % D Q N 3 : R U G V L Q W R \$ F W L R Q \* X L G H F U R I N I R U / Words into Action R Q D Q G D O V R W K H 3 N L W ' I R U W K H 0 D N L Q J & L W L H V devising the 10 Essentials H L V D O V R R Q H R I W K H D X W K R U V R I 3 ' H I L Q of the Asia Development Bank (ADB). He published extensively on the topic of risk assessment and risk management in scientific journals, conference proceedings and lectured at several universities in the United States, Japan, Germany, Turkey, and elsewhere. He has advised several international organizations (such as UN-ISDR, UNDP, UNHABITAT, World Bank, Asia Development Bank and American Development Bank), governments and international corporations and maintains an active earthquake engineering consulting practice in California where he is a registered professional engineer for more than 15 years. He was Principal Scientist and Vice President of RMS Inc., a California Corporation for 11 years, and served in the faculty of Stanford University for 13 years. He served as Visiting Professor at the Center for Urban Safety and Security in Kobe, Japan, and also served as Visiting Professor in Karlsruhe Institute of Technology in Germany. He holds Master and Ph.D. degrees in Civil Engineering from Stanford University and Bachelor Degree also in Civil Engineering from Ecole Nationale Polytechnique of Algiers, Algeria. He is a member of several professional and scientific organizations including the Earthquake Engineering Research Institute, the American Society of Civil Engineers, and the Structural Engineers Association of California.



**Nouredine Bourahla, PhD, Ing.**

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Nouredine Bourahla is a Professor of structural dynamics and earthquake engineering and head of the doctoral school of the civil engineering department at the University Saad Dahlab, Blida, Algeria. After graduating from ENP Algiers (Ecole National Polytechnique d'Alger), he joined Bristol University (UK) where he completed a PhD in 1990. At the Earthquake Engineering Research Centre (EERC, Bristol) he was heavily involved in seismic small-scale testing of steel frames on the six axis shaking table. He was also involved in data processing of seismic qualification testing. Beside the research activity, he performed teaching activity as tutor of strength of materials and structural computer aided learning for undergraduate students.

In 1991 he joined the University of Blida (Algeria) as a lecturer, where he co-founded an autonomous civil engineering department, established a research team and built up a resource of tools for full-scale ambient vibration testing of buildings. The team was awarded several research grants CNEPRU and PNR by the Ministry of Higher Education to provide support for postgraduate training (formation par la recherche). In addition to teaching duties at undergraduate and post-graduate levels, he supervised more than 50 PFE (research subjects) and about 30 MSc and PhD theses and provided specialized training on FE modelling and analysis for GECOTEC engineers (continuing education).

In 1992, he pursued a training course on higher education teaching, 'Education engineering and didactic' CEPEC, in Lyon, France and became an active member in higher education curriculum design where he contributed in updating structural dynamics and earthquake engineering syllabus for undergraduate courses.

He worked for two years as a research associate at the national earthquake engineering centre in Algiers (CGS) where he contributed to set a methodology for the seismic vulnerability studies of masonry buildings with a team from IZIIS Skopje.

In 2003, he received the T.K. Shieh award from the ICE (Institution of Civil Engineers, UK) as a co-author with a team from Oxford (UK) for a publication on seismic behaviour of knee bracing system.

The interest in structural dynamics continued and extended to experimental modal identification of dams (Taksebt, Koudiet asserdoune, Beni-Haroun) in the perspective of establishment of a vibration based health monitoring schemes. Since 2009, he has been working and leading a R&D unit on cold formed steel to help putting into practice the design and construction of CFS buildings in Algeria.

Prof. Bourahla is author or co-author of more than 80 publications in journals, peer reviewed conferences, reports, books or chapters and he is a member of several scientific boards at universities and national research centres as well as the technical committee of the Algerian seismic code of bridges (RPOA).

As specialist consultant, he has worked on numerous engineering projects such as the design and construction of a world class earthquake laboratory having a 6m x 6m six axis shaking table (CGS), seismic vulnerability studies and strengthening of existing ancient masonry/RC buildings, technical assistance on various types of structures such as high capacity stadiums, cement plants, electrical power plants and other industrial installations.



Amar A. Chaker, Ph.D., F.AEI, F.EMI, F.ASCE  
Director, Engineering Mechanics Institute of ASCE



Dr. Chaker obtained a de J U H H R I <sup>3</sup>, Q J p Q L H X  
Ecole N D W L R Q D O H G H V 3 R Q W P a r i s H M a n e k  
and a Ph.D. degree in Civil Engineering from the University  
of Illinois at Urbana-Champaign.

He joined ASCE in 1999 where he has worked in the  
Technical and International Activities Division, the  
Transportation and Development Institute, the Civil  
Engineering Research Foundation, the Architectural  
Engineering Institute, and the Building Security Council. He  
has been the director of the Engineering Mechanics Institute  
of ASCE since its creation in 2007.

As technical director of the Algerian State Organization for Technical Control of Building Construction (CTC), he co-chaired the committee that developed the Algerian standard for the earthquake-resistant design of buildings and participated in its subsequent revisions. He also participated in major post-earthquake investigations, in a seismic hazard and urban microzonation study for the region of Chlef, and conducted the structural design review and the structural analysis of many complex projects.

He has been a tenured full professor and director of the Civil Engineering Institute of the University of Science and Technology in Algiers, Algeria and has held faculty positions at the University of Illinois at Urbana-Champaign and Drexel University. His areas of interest include earthquake engineering, structural dynamics, computational mechanics, probabilistic methods, and disaster risk management and resilience.

He was the founding president of the Algerian Earthquake Engineering Association. He is a member of ASCE and EERI, and is active in several technical committees. He served on the editorial boards of Earthquake Engineering and Structural Dynamics and Annales Maghrébines de l'Ingénieur. He is the author or co-author of over 60 publications. He is an associate editor of Natural Hazards Review and a reviewer for several peer-reviewed journals.



Leila Hamroun Yazid, AIA, NCARB, LEED, Owner of Past Forward Architecture has over twenty-five years of experience providing design, planning, management and cultural analysis services primarily for existing buildings. Her projects range from historic urban centers planning, to award-winning restoration projects and design guidelines.

Ms. Hamroun Yazid is a graduate of the Ecole Polytechnique (Paris, France), and holds a Master's degree in Urban Planning from the Centre des Hautes Etudes de Chaillot, Paris, France) and an MA in Urban Affairs and Public Policy from the University of Delaware (Newark, USA). She is a LEED® Accredited Professional and meets the Secretary of the Interior's criteria for a Certified Historic Preservation Specialist. Her varied background informs a nuanced perspective on the historical, political, social and economic contexts that shape interventions on the existing building fabric.

Ms. Hamroun Yazid has a distinguished record in developing strategies for the long-term stewardship of the built heritage with a commitment to customized solutions, adapted to the nature, scale and context of each project. She has developed an effective and inclusive approach that seeks to create consensus between the multitude of stakeholders and governmental entities involved in the process, informed by a thorough - and practical - knowledge of relevant codes and standards and latest technological innovations. By bringing together design and technical knowledge from the combined disciplines of architecture, planning, conservation, and building diagnostics, she is committed to imaginative design solutions that provide a contemporary experience while respecting the integrity and character of the existing building fabric.

Ms. Hamroun Yazid has consistently enriched her professional practice with presentations at national conferences, teaching opportunities, educational programming, and mentoring activities. She helped develop content for courses for the National Center for Preservation Technologies & Training (NCPTT) and co-authored the chapter on "Principles of Architectural Preservation" in *A Companion to Cultural Resources Management*, King, ed. (Blackwell 2010) with David Ames, PhD., of the University of Delaware. She has been a guest speaker at the University of Delaware, an analytical paper reviewer for the *Journal of Urban Planning and Public Policy*, a guest critic for studios at Philadelphia University and teaches in the Delaware Technical Community College Construction Management and Architectural and Engineering Technology programs.

Ms. Hamroun Yazid is a registered architect in the states of Connecticut, Delaware, Maryland, New Jersey and Pennsylvania. Recent projects include the Restoration of the Adrian Phillips Theatre and the Limestone Façade Masonry Restoration at Boardwalk Hall (National Historic Landmark 1929) in Atlantic City, New Jersey, Updated Design Guidelines and Standards for the New Castle National Historic Landmark District, in New Castle, Delaware, Non-Destructive Evaluation Building Envelope Assessment of the Trinity Church (c. 1890) Triad Building, Old Swedes Church (1699- National Historic Landmark) & Christina Community Center in Wilmington, Delaware, Cincinnati Union Terminal Renovation Pilot Project 1 (1932 - National Historic Landmark) Cincinnati, Ohio, Feasibility Study for the Adaptive Reuse of New Orleans Medical Center at Charity Hospital (1939- eligible for State/National Register of Historic Places), New Orleans, LA and the US Capitol Grounds Olmsted Hardscape Features Historic Structures Report (1874 - 1892, National Historic Landmark) Washington, DC



Said KENAI is currently a Professor of concrete technology, building materials and diagnostic and repair of structures at the civil engineering department and chairman of the civil engineering research laboratory, University Saïd Dahleb, Blida1, Algeria. He obtained his PhD from the University of Leeds (UK) in 1988. He is a member of ACI, a founding member of the African Materials Research Society (MRS Africa) and a member of RILEM TGISC (In situ strength assessment of concrete). He is currently a member of the advisory committee to the Algerian ministry of higher education and research (Comité sectorial permanent) a consultant in charge of quality control, inspection and diagnosis of buildings at the Department of Consulting and Testing (CQJLQHHULQJ 6 & 7).

He has authored over 100 international journal and conference papers and ELSEVIER chapter book on recycled aggregates. He is a member of the editorial board of many journals: VXFK DV 3 DGYDQFHV LQ FRQFUHVV, the Open World Engineering journal, Scientific Advances Journal of civil and construction engineering, India. He is a reviewer of several international journals. He has been invited as a keynote lecturer in many conferences in Brazil, South Africa, Jordan and Egypt. He has collaborated on many research projects with colleagues in Belgium, France, England, USA, Brazil and South Africa. His main research interests include concrete durability, recycling, earth constructions, self compacting concrete, non-destructive testing and repair and strengthening of structures.

## Biography

### Omar Khemici, PhD, PE

Dr. Khemici, a consultant, has thirty-five years of professional experience in the field of earthquake engineering and catastrophe risk management. As Director in the Model Development Group of CoreLogic, a global catastrophe modeling team specializing in the development of risk assessment, risk mitigation and risk transfer software tools, Dr. Khemici's led a team of scientists and engineers whose responsibilities included the development of vulnerability models, the technical documentation, the models validation and the testing of stochastic cat models worldwide. In this capacity, he managed related model components for earthquake, hurricane, flood, wildfire, terrorism and industrial accidents.

In a previous role at CoreLogic, he managed several US and international cat bonds where he provided the analytics for property and liability coverage. He also led for several years the analysis of portfolios of major insurance and reinsurance companies in the US, Europe and Asia.

Dr. Khemici was successively with Jack Benjamin and Associates (JBA) in Mountain View, CA, and Ammann & Whitney in New York, NY before joining EQE International, then ABS Consulting which were acquired by CoreLogic. At JBA and EQE he provided seismic expertise to the US nuclear power industry. He inspected several US plants, analyzed the seismic capacity of their components and provided retrofit solutions. Dr. Khemici contributed to a major utility study for the Electric Power Research Institute (EPRI) defining the Operating Basis Earthquake exceedance criterion in nuclear power plants. In this study he introduced the Cumulative Absolute Velocity (CAV) parameter as a new earthquake damage indicator. At Ammann & Whitney in New York, Dr. Khemici was responsible for the definition of the seismic design provisions of several important facilities including the extension of the Dulles International Airport Terminal in Washington, DC. He also evaluated the seismic resistance of existing unreinforced masonry buildings and provided detailed retrofit schemes.

Dr. Khemici's work in Algeria included teaching various courses at the ENITA, the USTHB and at the University of Algiers. He also participated in the damage surveys conducted by US engineering teams following the 1980 Al Asnam Earthquake and the 2003 Boumerdes Earthquake.

Dr. Khemici received his Engineer degree from the National Polytechnic School in Algiers, in 1975 and his Masters and PhD degrees from Stanford University in California in 1978 and 1982, respectively. He holds a Professional Engineer (PE) License in the State of California.