**March 13th, 2012 (Tue)  10:00 AM - 11:30 AM**

*“Practical Modeling, Analysis and Design Solution for Building and General Structures” / Mr. Ravi Kiran & Mr. Yaman Wadhwani*

Are you looking for an alternative structural design solution?

To *Analyze and Design* Complex and Large Structures.

To *optimize the design* quickly and accurately.

To *maximize the efficiency* in the entire design process.

This 90-minute online session gives an overview of optimal structural design solution for you.

This Pre-symposium of Building Session would focus on,

• How to model & design prismatic sections

• How to easily perform construction stage analysis for high-rise buildings

• How to perform the design check as per ACI 318.

• Finally, how to perform optimal design of steel sections.

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**March 14th, 2012 (Wed)  10:00 AM - 11:30 AM**

*“Importance of 3D Analysis in Geotechnical Engineering (Special Emphasis: Construction Stage of Tunnel Projects)” / Mr. JaeSeok Yang & Mr. Vipul Kumar*

Are you looking for an alternative 3D analysis in geotechnical engineering?

To *simulate complex 3D soil-structure interaction (SSI)* such as pile group.

To model your tunnels *with unconventional connection galleries*.

To *simulate & analyze 3D geometry modeling* quickly and accurately.

This 90-minute online session gives an overview of 3D geotechnical solution and construction stages of tunnels for you.

This Pre-symposium of Geotechnical Session would focus on,

• How to model for tunnels with connection including reinforcement

• How to easily perform construction stage analysis considering excavation sequences

• How to check results of 3D tunnel model

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**March 15th, 2012 (Thu)  10:00 AM - 11:30 AM**

*“Advanced Structural Types of Girder Bridges with 3D Finite Element Solution” / Ms. HyeYeon Lee & Mr. Abhishek Das*

Are you looking for an alternative bridge design solution?

To *optimize your bridge sections* for Strength Limit State Design forces.

To *simulate & analyze bridge erection stages* quickly and accurately.

To *minimize trial-and-error* in your design check & design report generation.

This 90-minute session gives an overview of optimal bridge design solution for you.

This Pre-symposium of Bridge Session would focus on,

• What is the special consideration of curved bridge

• How to easily model and interpret design forces for both grillage and 3D bridge model

• How to consider soil interaction in integral bridges

• How to perform Moving Load Analysis as per AASHTO LRFD

• How to define Staged Construction considering erection steps & tendons
2012 Symposium for Buildings, Bridges, and Geotechnical Engineering

PART II: Symposium Day 1

March 29th, 2012

08:30 a.m. - 09:15 a.m. Registration

09:15 a.m. - 09:30 a.m. Opening Speech
Dr. Yousef Al-Assaf / Dean of Faculty of Civil Engineering

09:30 a.m. - 09:35 a.m. Collaboration Ceremony - Midas and College of Engineering American University of Sharjah

09:35 a.m. - 09:45 a.m. Introduction to MIDAS
Mr. Jason Choi / MIDAS

Session I - Building Engineering

09:45 a.m. - 10:20 a.m. Seismic Protective Systems in Structural Design
Dr. Mohammad AlHamaydeh / AUS

10:20 a.m. - 10:30 a.m. Coffee Break

10:30 a.m. - 11:20 a.m. Construction Stages and Column Shortening Analysis in Tall Buildings
Mr. Ravi Kiran / MIDAS

11:20 a.m. - 12:00 noon Building Project Applications using MIDAS Gen
Dr. Khaled Ismail / eConstruct

12:00 noon - 01:00 p.m. Lunch Break

Session II – Bridge Engineering

01:00 p.m. - 01:30 p.m. AASHTO LRFD Design Provisions for Prestressed Concrete Bridges
Dr. Sami Tabsh / AUS

01:30 p.m. - 02:20 p.m. Multi-Cell Prestressed Box Girder Bridge Design as per AASHTO LRFD
Ms. HyeYeon Lee / MIDAS

02.20 p.m. - 03.00 p.m. Cable Stayed Bridge Applications & Cable Forces Optimization
Mr. Fareed A Siddiqi and Mr. Hesham Nour Eldeen / AECOM

03.00 p.m. - 03.30 p.m. Coffee break

Session III - Geotechnical Engineering

03:30 p.m. - 04:00 p.m. Stability of Access Shafts and Tunnel Portals
Dr. Zahid Khan / AUS

04:00 p.m. - 04:50 p.m. 3D Soil-Structure Interaction Analysis for Tall Buildings and Bridge Foundations
Mr. JaeSeok Yang / MIDAS

04:50 p.m. - 05:30 p.m. Foundation design for the Pentominium Tower in Dubai
Mr. JaeSeok Yang / MIDAS

05:30 p.m. - 06:00 p.m. Seminar Closing Ceremony (Certificate / Survey / Drawing for prizes)
Dr. Mohammad Al Hamaydeh earned his PhD in structural/earthquake engineering from the University of Southern California, USA. He has taught several structural engineering courses, such as structural steel design, fundamentals of structural dynamics, computer methods in structural analysis and design, as well as analysis and design of tall buildings. His area of research and expertise include nonlinear structural dynamic response analysis and modeling, passive control and supplemental damping devices, computer-aided design and simulation, nonlinear finite element methods as well as soil-structure-interaction. Prior to his academic career, he was an active member of the Structural Engineers Association of California (SEAOC) as a consultant engineer in Los Angeles, California.

Dr. Sami W. Tabsh has been a faculty member at the University of Houston, Texas, and a project engineer for complex structures with Gannett Fleming, Inc., Harrisburg, Pennsylvania, USA. Dr. Tabsh earned a PhD in civil engineering, with emphasis on structures, from the University of Michigan, USA. His research interests are in reliability-based code development, bridge structures, high-rise buildings and large-scale experimental testing. He has been published many times in international journals and conference proceedings, and is a licensed Professional Engineer in the State of Pennsylvania, USA.

Dr. Zahid Khan earned his PhD in Civil Engineering from the University of Western Ontario, Canada. Dr. Khan has worked as a foundations engineer with the Ontario Ministry of Transportation in Canada. He provided professional engineering services for more than 15 years on projects in Canada and abroad. He is a registered professional engineer in the province of Ontario, where he also managed and directed an engineering firm that provides geotechnical engineering. His research interests involve geotechnical earthquake engineering, static and dynamic foundation analysis, non-destructive and non-invasive methods, and seismic site response and liquefaction analysis.

Dr. Rahi Khan earned his PhD in Civil Engineering from the University of Western Ontario, Canada. Dr. Khan has worked as a foundations engineer with the Ontario Ministry of Transportation in Canada. He provided professional engineering services for more than 15 years on projects in Canada and abroad. He is a registered professional engineer in the province of Ontario, where he also managed and directed an engineering firm that provides geotechnical engineering. His research interests involve geotechnical earthquake engineering, static and dynamic foundation analysis, non-destructive and non-invasive methods, and seismic site response and liquefaction analysis.

Mr. JaeSeok Yang received his MSc in Geotechnical Engineering. He has over 13 years of research and consultancy experiences in the field of finite element analysis in geotechnical and civil engineering. He works with MIDAS IT since 2004 and is midas GTS team-leader. He has provided several lectures and workshops with midas software such as top down cut and cover excavation in Hong Kong, numerical analysis for a new metro project in Egypt, excavation analysis for a new subway project in Indonesia, and construction stage analysis of deep excavation in Russia, etc.

Mr. Ravi Kiran is the finite element analysis specialist and senior civil/structural engineer with eight years' experience in buildings & infrastructure projects. He joined MIDAS IT in the year 2007 as Structural Design Engineer; at present he is working with International Support and looks after midas Gen.

Ms. HyeYeon Lee is the finite element analysis specialist and senior civil/structural engineer with six years’ experience in midas Civil & Gen development management and program training. She had a research on seismic analysis and design of buildings and bridges for the software specifications and documents. She has provided several lectures and workshops with midas software such as horizontal curved bridge analysis in Philippines, Eurocode building design in Malaysia, seismic analysis and design in Indonesia, high-rise building analysis and column shortening in Turkey, and FCM bridge analysis in Singapore, etc.

Mr. Fareed Siddiqi has more than 21 years of experience in Engineering Consultancy for various type of structures including Bridges, Rail Viaducts and Stations, Tunnels as well as in Residential & Commercial Towers and Industrial Buildings projects. He has earned his MS in Structures from University of Oklahoma, US. Been involved in highly technical and sophisticated FEA for different kind of bridges, he is a practical and highly skilled bridge engineer and has been responsible for providing technical leadership on some exciting bridge projects such as Sheikh Zayed Bridge in Abu Dhabi, Dubai Ring Road Project, Bridge works in Al Raha Beach Development, concept design of viaducts and stations of Abu Dhabi Metro Project in addition to a Cable Stayed Bridge project in Abu Dhabi. He currently serves as an Associate Director Bridges & Tunnels in the UAE Region for AECOM.

Dr. Hesham Nour El Deen has nearly 19 years of extensive practical experience in the design and construction of bridges, having worked with both contracting and consulting firms. He earned his M.Sc. and his PhD in the construction, analysis, and design of cable-stayed bridges. His experience covers most of bridge types. However he is more specialized in segmental and cable-stayed bridges. He was involved in the design and construction of many iconic bridges all over the world such as Aswan cable-stayed bridge and Suez Canal cable-stayed bridge in Egypt, Bandra cable-stayed bridge and Worli cable-stayed bridge in India, Sungai Parai cable-stayed bridge in Malaysia, Wadi Abdoun cable-stayed bridge in Jordan, and Jamarat segmental Bridge in Saudi Arabia. He is currently working for AECOM in UAE as a principal bridge engineer since 2007.
### 2012 Symposium for Buildings, Bridges, and Geotechnical Engineering

**PART III: Symposium Day 2 & 3**

*(Building Workshop)*

**March 31st - April 1st, 2012** (same course will be repeated for each day)

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<tr>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>09:00 a.m. - 09:30 a.m.</td>
<td>Registration</td>
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<tr>
<td>09:30 a.m. - 10:45 a.m.</td>
<td><strong>Course I - General Building Design (RC) – Part I</strong>&lt;br&gt;Mr. Ravi Kiran / MIDAS&lt;br&gt;Modeling, Static &amp; Dynamic (Response Spectrum) Loads</td>
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<tr>
<td>10:45 a.m. - 11:00 a.m.</td>
<td>Coffee Break</td>
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<tr>
<td>11:00 a.m. - 12:30 p.m.</td>
<td><strong>Course II - General Building Design (RC) – Part II</strong>&lt;br&gt;Mr. Ravi Kiran / MIDAS&lt;br&gt;Analysis and Design</td>
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<tr>
<td>12:30 p.m. - 01:30 p.m.</td>
<td>Lunch Break</td>
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<tr>
<td>01:30 p.m. - 02:30 p.m.</td>
<td><strong>Course III – Meshed Slab &amp; Wall Design</strong>&lt;br&gt;Mr. Ravi Kiran / MIDAS</td>
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<tr>
<td>02:30 p.m. - 04:00 p.m.</td>
<td><strong>Course IV – Structural Steel Design</strong></td>
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<td>04:00 p.m. - 04:20 p.m.</td>
<td>Coffee Break</td>
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<tr>
<td>04:20 p.m. - 05:00 p.m.</td>
<td><strong>Course V – Pushover Analysis</strong>&lt;br&gt;Mr. Ravi Kiran / MIDAS</td>
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<tr>
<td>05:00 p.m. - 05:10 p.m.</td>
<td>Q &amp; A / Certificate / Survey</td>
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### 2012 Symposium for Buildings, Bridges, and Geotechnical Engineering

#### PART III: Symposium Day 2 & 3

**March 31st - April 1st, 2012** (same course will be repeated for each day)

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<tr>
<td>09:30 a.m. - 10:45 a.m.</td>
<td><strong>Course I – General Usage</strong>&lt;br&gt;Overview, Geometry Modeling, Meshing, Property, Boundary Condition, Load, Analysis, Results</td>
<td>Mr. JaeSeok Yang / MIDAS</td>
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<td>10:45 a.m. - 11:00 a.m.</td>
<td>Coffee Break</td>
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<tr>
<td>11:00 a.m. - 11:45 a.m.</td>
<td><strong>Course II – Practice of Geometry modeling</strong>&lt;br&gt;Geometry Modeling</td>
<td>Mr. JaeSeok Yang / MIDAS</td>
</tr>
<tr>
<td>11:45 a.m. - 12:30 p.m.</td>
<td><strong>Course III – 3D Construction Stage Analysis of Excavations &amp; Foundations</strong>&lt;br&gt;Geometry Modeling</td>
<td>Mr. JaeSeok Yang / MIDAS</td>
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<tr>
<td>12:30 p.m. - 01:30 p.m.</td>
<td>Lunch Break</td>
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<tr>
<td>01:30 p.m. - 04:00 p.m.</td>
<td><strong>Course IV – 3D Construction Stage Analysis of Excavations &amp; Foundations</strong>&lt;br&gt;Meshing &amp; Analysis</td>
<td>Mr. JaeSeok Yang / MIDAS</td>
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<td>04:00 p.m. - 04:20 p.m.</td>
<td>Coffee Break</td>
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<tr>
<td>04:20 p.m. - 05:00 p.m.</td>
<td><strong>Course V – 3D Construction Stage Analysis of Excavations &amp; Foundations</strong>&lt;br&gt;Post Processing</td>
<td>Mr. JaeSeok Yang / MIDAS</td>
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March 31st - April 1st, 2012 (same course will be repeated for each day)

09:00 a.m. - 09:30 a.m. Registration

09:30 a.m. - 10:45 a.m. **Course I - General Usage – Part I**
Ms. HyeYeon Lee / MIDAS
Overview, Modeling, Boundary Conditions

10:45 a.m. - 11:00 a.m. Coffee Break

11:00 a.m. - 12:30 p.m. **Course II - General Usage – Part II**
Ms. HyeYeon Lee / MIDAS
Loads, Analysis Results, Design

12:30 p.m. - 01:30 p.m. Lunch Break

01:30 p.m. - 04:00 p.m. **Course III – Construction Stage Analysis – Part I**
Ms. HyeYeon Lee / MIDAS
Construction Stage Data Generation, Relaxation of Tendon, Time Dependent Effect

04:00 p.m. - 04:20 p.m. Coffee Break

04:20 p.m. - 05:00 p.m. **Course IV – Construction Stage Analysis – Part II**
Ms. HyeYeon Lee / MIDAS
Deformation and Forces by Stages, Tendon Loss, Stage History Graph, Load Combination

05:00 p.m. - 05:10 p.m. Q & A / Certificate / Survey