

5th ANNUAL
MODULAR & PRECAST
C O N S T R U C T I O N



25th - 26th May 2016 | Sofitel Bangkok Sukhumvit, Thailand

5th ANNUAL MODULAR & PRECAST CONSTRUCTION

Build it Fast – Relevant and Robust

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Better-designed residential and commercial buildings have been built to meet changing needs and tastes, but affordability and functionality continue to be emphasized.

– HDB

WHY YOU CANNOT MISS THIS EVENT

If you're not innovating you're not growing. Modular Construction and Precast Technology for both internal and external structures has become relatively important across the world, based upon its relative affordability, the speed by which it can be erected and the ease by which it can be made to meet modern environmental considerations. Whether your need is functional, aesthetical or both, precast concrete technology and modular is your go-to building material.

Think and work in a holistic approach - The greatest achievement of Modular Construction and Precast Technology:

- Modular homes are built with factory precision using 25% less material on average than either site-built or manufactured homes
- Shortened construction work by up to 70% while looking at building and faster returns on investment
- Prefab homes typically take less time to build than a site built home
- Precast concrete brings resilience and durability to withstand natural disasters with cost-effective solutions that will last for decades
- Precast is clearly an extremely efficient system to all types of structures and will continue to be a go-to material for engineers and architects seeking high performance

Getting in track after huge commendable and successful events in the past 4 years, the **5th Annual Modular & Precast Construction** is back again with another new addition on Precast Technology. There will be three streams for Residential and Commercial, Industrial and Precast Technology. This will be a not to miss opportunity in meeting developers, asset owners, architects, precasters, solution providers with latest technology, designs, logistics and infrastructure.

THIS UNIQUE CONFERENCE WILL BRING DELEGATES THE BENEFITS OF:

- **Assessing** scope and scale that would require the use of modules and prefabricated building
- **Looking** at sustainable modular building practices in increasing the ROI on your project delivery
- **Knowing** the future of modular & prefabricated space for industries and beyond!
- **Detailed** cost-effective and time-efficient process in modular construction in comparison with traditional construction
- **Setting** new sustainability benchmarks : Scaling new heights in sustainability and innovation
- **Implementing** precast technology in achieving cost-effectiveness and speedy completion of projects
- **Asserting** the quality of the output in comparison to the regular brick-and-mortar projects
- **Assisting** construction companies using precast technology on a large scale in delivering better results than in earlier times

WHO SHOULD ATTEND?

This conference is designed for those who are from this background:

- General Managers
- VPs and Directors of Procurement
- Project Directors and Managers
- Construction Directors and Managers
- Construction Technology Directors and Managers
- Materials and Direct Procurement Managers
- Planning and Design
- Logistics and Planning
- Architects
- Contractors
- Sub-Contractors
- House and Planning

From:

- Property Development
- Modular manufacturing
- Township Planning
- Local Government Councils
- Affordable House/Public Housing/ Departments
- Modular Solutions
- Buildings and Construction Technology
- Architectural and Design Firms
- Manufacturing and Suppliers of Construction Materials

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RATEC – founded in 1994 in Hockenheim, Germany – is trendsetter and innovation leader in the development and production of magnet-based formwork systems for the manufacturing of precast concrete products.

With over 20 years of experience, RATEC delivers its products to customers in over 72 countries worldwide today. From the switchable magnetic box up to complete formwork solutions for automated circulation plants, battery formwork systems and concrete pumps, RATEC has decisively shaped and influenced precast concrete production up to today. Besides standard solutions, individual formwork systems for (almost) all requirements are developed according to customer needs.

Furthermore, with upcrete® technology RATEC has developed an innovative procedure to pump self-compacting concrete into closed molds, that has set new standards for the vertical production of precast concrete elements up to 3-D room modules. Thus, it offers new – previously unknown - possibilities of prefabrication and provides impetus for those who plan and design the buildings of the future.

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THE BRAND YOU KNOW AND TRUST HAS A NEW NAME



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- No 1 position in cement additives, and #2 position in concrete admixtures
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- No 1 position in can sealants

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FEATURING PRESENTATIONS AND CASE STUDIES BY KEY DISTINGUISHED EXPERTS:



Joshua Hunt (Hunter)
Director
Wanhua Modular Projects, China



Matthew Egan
Managing Director
MODULARIZE, UK



Roger Krulak
Former Senior Vice President Modular Construction & Development
Forest City Ratner, United States of America



Karim Khalifa
Senior Vice President, Global Design Strategies
Marriott International, United States of America



Dr. Foo Che Hung
Researcher Construction Research Institute of Malaysia (CREAM), Malaysia



Raymond Chan
Project Director
Teambuild Construction, Singapore



Owen Wee
Green Building Award Winner
Building Construction Authority, Singapore



Ferzat Mercan
Senior Executive Director
Dorce Prefabricated Buildings & Construction, Turkey



Worawat Theerapatthamrong
Bangkok Team Leader
Blast innovation Co. Ltd, Thailand



Mathieu Meur
Managing Director
Meinhardt Facade Technology, Singapore



Frank Prochiner
Chief Executive Office
Munitec GmbH, UNICON, Germany



Narit Direkwattanachai
Principal
NARIT & Associates Ltd, Thailand



James Lim
Director
Superspan, Malaysia



Tomoya Hatae
Senior Manager, Head of Technology Development Team, International Business Department
Sekisui House Ltd, Japan



Zhong Hua Asia Pacific Product Director
Specialty Construction Chemicals
GCP Applied Technologies Inc, Singapore



Pamela Bell
Chief Executive Officer
PrefabNZ, New Zealand



Jon Sealey
Design Director
Marques and Jordy, Thailand



James Gardiner
Lead of Design & Innovation at the Engineering Excellence Group
Laing O'Rourke, Australia



Amy Marks
President/Owner
XSite Modular, United States of America



Leah Hamer
Business Development Manager
CIMC Modular Building Systems, Australia



Thierry Brezac
Project Director
Dragages, Singapore



Pankaj Shah
Former Advisor, Integrated Engineering Services
Larsen & Toubro Limited, India



Waco Tan
Founder & CEO
PowerHouse Homes, Australia



Andrew Lian
Director
Aida Consultants, Australia



Ricardo Bagagem
BIM Manager
Meinhardt, Thailand



John Lucchetti
Principal Hydraulic Section Head
Wood & Grieve Engineers, Australia



Vince Cosmai
National Manager
KJM Contractors Pty Ltd, Australia



Kenta Konishi
Managing Director
Sekisui House Singapore Pte Ltd



Joerg Reymann
Managing Director
RATEC and Reymann Technik, Germany



Nonda Katsalidis
Founding Director
Fender Katsalidis Architects & United Building Limited, Australia

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DAY ONE

- 0800 **Registration and Coffee**
- 0845 **Opening Address by Chairperson**
- 0900 **Plenary One: Precast and beyond, a uniquely Singapore's solution**
Raymond Chan Project Director
Teambuild Construction, Singapore
- 0945 **Plenary Two: Joint Presentation: Value Innovation of Prefab Housing**
Tomoya Hatae Senior Manager, Head of Technology Development Team, International Business Department
Sekisui House Ltd, Japan
Kenta Konishi Managing Director
Sekisui House Singapore Pte Ltd
- 1030 **Speed networking**
- 1045 **Morning refreshments**
- 1115 **Plenary Three: Plug and Play Precast: design for flexible prefabricated housing in tropical country**
Dr. Foo Che Hung Researcher
Construction Research Institute of Malaysia (CREAM), Malaysia
- 1200 **Plenary Four: Who is liable: Addressing emerging legal issues arising from prefabricated building defects and damage**
Narit Direkwattanachai Principal
NARIT & Associates Ltd, Thailand
- 1245 **Networking Luncheon**

STREAM ONE: RESIDENTIAL	STREAM TWO: COMMERCIAL	STREAM THREE: PRECAST CONSTRUCTION
<p>1400 Session One Prefab for the Future: Adopting hybrid modular technology for better delivery and speedy construction completion</p> <ul style="list-style-type: none"> Optimising modular construction techniques in delivering sophisticated and complex facility types Leveraging base technology and experience: the future will be like the automotive industry Achieving competitive edge: recognising the usage of prefabrication and modularisation <p>Worawat Theerapattathamong Bangkok Team Leader Blast Innovation Co.Ltd, Thailand</p> <p>1445 Session Two Sourcing the right materials in ensuring the durability and increased life expectancy of modular construction</p> <p>In the market for a new facility or addition but concerned about construction costs? Look to permanent modular construction (PMC) as a way to acquire a new building in a tough economy. This alternative construction technique yields faster completion times, improved efficiency, cleaner materials, and better quality control. PMC does not change the design, structural system, or finish materials options available to the owner and architect. The only difference is in the method of construction. The modular construction industry continues to advance, and new technologies and designs are creating great efficiencies in the construction process. The right contractor will ensure your modular building will meet your needs for years to come.</p> <p>Vince Cosmai National Manager KJM Contractors Pty Ltd, Australia</p>	<p>1400 Session One Modularisation and Building Systems (MBS) design - A Singapore story</p> <p>The Modular Building Systems framework offers a real alternative to traditional build accommodation, providing a comprehensive range of solutions designed to cover most temporary and semi-permanent accommodation requirements. This session seek to examine the following elements:</p> <ul style="list-style-type: none"> Why modularisation in a modern city Challenges in a modern City Conflict of design and modularisation – Can we find a balance? Case studies of Modularisation <p>Owen Wee Green Building Award Winner Building Construction Authority, Singapore</p> <p>1445 Session Two Using prefabricated modules to fully integrate and enhance existing on site structures: Making Modular Work for Healthcare Bendigo Hospital Hotel</p> <ul style="list-style-type: none"> The use of prefabricated modules to fully integrate and enhance existing in-situ structures Using technological advances such as BIM to create better opportunities to transform and in construction projects life cycle How to greatly reduce site time through design refinemen Building sustainable design into the fabric of modular construction. <p>John Lucchetti Principal Hydraulic Section Head Wood & Grieve Engineers, Australia</p>	<p>1400 Session One Integration of MEP systems in prefabrication to reach higher level of finishing and prefabrication standards</p> <ul style="list-style-type: none"> Driving the pace of prefabrication through proper use of MEP in precast concrete Coordinating structural and architectural systems in allowing the most efficient MEP systems to be utilise Using practical examples to demonstrate the key benefits and usefulness of integrated MEP system to prefabricated buildings <p>Frank Prochner Chief Executive Officer Munitec GmbH, UNICON, Germany</p> <p>1445 Session Two GCP Applied Technologies : AIRtrac - Air Management System for Concrete AIRtrac</p> <p>This is a system that measures the temperature and total air content of concrete while it is being mixed, in real time. This system provides tremendous value to precast concrete producers and owners, developers and contractors alike.</p> <p>Benefits for Precast Concrete Producers</p> <ul style="list-style-type: none"> Concrete mix optimisation and savings Reduced rejections and wastage Real time monitoring and tracking of mix information Overall productivity gains and market differentiation for enhanced profitability <p>Benefits For Owners, Developers, Contractors</p> <ul style="list-style-type: none"> Greater assurance of delivery of in-spec concrete Enhanced concrete quality and project durability <p>Zhong Hua Asia Pacific Product Director GCP Applied Technologies Inc, Singapore</p>
<p>1530 Afternoon refreshments</p>	<p>1530 Afternoon refreshments</p>	<p>1530 Afternoon refreshments</p>
<p>1600 Session Three From vision to reality – Fast and efficient production of precast concrete modular houses using upcrete® technology: Project report Philippines</p> <ul style="list-style-type: none"> Learn how to implement feasible and economic modular housing production using upcrete® technology How to determine the best design choice for your project Learn about the idea and technology behind the upcrete modular housing concept Find out more about recent customer projects and how they realized their vision Find out about the advantages and prerequisites of a standardized modular house prefabrication <p>Joerg Reymann Managing Director RATEC & Reymann Technik, Germany</p> <p>1645 Session Four From Design to Development: Ensuring proper communication and coordination between different stakeholders for smooth project delivery</p> <p>Communication is among the more important factors for success in project management. Communication is the fuel that keeps the project running smoothly.</p> <ul style="list-style-type: none"> Establishing a clear design strategy during the early phases of a project with proper communications strategies Aligning the design and construction teams and developing an effective process which minimises design discrepancies during the construction phase Managing your decision process - How your design decisions drive the overall project <p>Pankaj Shah Former Advisor, Integrated Engineering Services Larsen & Toubro Limited, India</p>	<p>1600 Session Three: Video Conference Project-Centricity, Process and "Prove It!" – How to Overcome the killers of modern methods of construction (MMC) and innovation</p> <p>Innovation and change in the construction industry has been slow moving at best. Who and what are the real roadblocks to success in enabling prefabrication, off-site, DFMA and Modern Methods of Construction (MMC)?</p> <p>Amy Marks, an industry thought leader and agent for change, discusses how to recognize these roadblocks, identify the real opportunities and create transformational change, the construction industry worldwide and within your own business.</p> <p>Amy Marks President & Owner XSite Modular, United States of America</p> <p>1645 Session Four - Panel Discussion Comparing modular with stick-built projects: Is modular cost effective?</p> <p>No matter how attractive a modularised project may appear to be, it must provide a clear economic advantage over stick-built (or onsite) construction. This panel discussion would give comparisons on labor cost, labor productivity, structural steel design and fabrication, assembly hours, insulation and fireproofing subcontract cost, schedule extension and field indirect cost, transportation and crane cost between modular and stick-built project.</p> <p>Moderator Dr. Foo Che Hung Researcher Construction Research Institute of Malaysia (CREAM),</p> <p>Panelists: Matthew Egan Managing Director MODULARIZE, UK John Lucchetti Principal Hydraulic Section Head Wood & Grieve Engineers, Australia</p>	<p>1600 Session Three Examining the types and evaluation of each type of Cold Formed Steel prefabricated buildings</p> <p>The use of steel in prefabrication offers greater capacity as a compression and tension material for its weight and cost. The attributes of steel makes it an ideal material for prefabrication when compared to alternative materials. Hear from the speaker as he highlights the benefits of using cold formed steel elements in the fabrication process is its suitability for use in machinery configured and programed to accept CAD (computer aided design) data such as cutting lists.</p> <p>Ferzat Mercan Senior Executive Director Dorç Prefabricated Buildings & Construction Trade, Turkey</p> <p>1645 Session Four - Panel Discussion Exploring the latest state of art prefabricated bathroom pods for your construction</p> <p>Using modular bathrooms helps maximize productivity and limits waste. Bathrooms make an ideal candidate for prefabrication, being relatively small and self-contained units. With traditional building, a multitude of trades needs to be organised to realize the bathroom design. In this session, hear from the panel of speakers highlight the latest trends and strategies in the sector of prefabricated toilet and bathroom pods that is gradually evolving.</p> <p>Moderator Raymond Chan Project Director Teambuild Construction, Singapore</p> <p>Panelists: Leah Hamer Business Development Manager CIMC Modular Building Systems, Australia Joerg Reymann Managing Director RATEC & Reymann Technik, Germany</p>
<p>1730 End of Day One</p>	<p>1730 End of Day One</p>	<p>1730 End of Day One</p>

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DAY TWO

- 0800 Registration and Coffee
- 0845 Welcome Address by Chairperson
- 0900 **Plenary One: The Innovation Village - Lessons from Europe, US and Asia towards a post-disaster housing showcase in New Zealand (2011-14)**
Pamela Bell Chief Executive Officer
PrefabNZ, New Zealand
- 0945 **Plenary Two: Lego High-Rise: Tallest Volumetric Building- Case study B2 Brooklyn, New York**
Roger Krulak Former Senior Vice President Modular Construction & Development
Forest City Ratner, United States of America
- 1030 Speed networking
- 1045 Morning refreshments
- 1115 **Plenary Three: Analysing Costs, Return on Investment and Sustainability in PPVC/Offsite – How can we Instantly Predict Lifecycle Costs, Environmental Impact Analyse “What-If” Scenarios Quickly and Effectively to Ensure that we Build More Economically?**
Matthew Egan Managing Director
MODULARIZE, UK
- 1200 **Plenary Four: Thinking out of the box: Meeting the requirements of clients and end users: Holiday Inn Express London Excel**
Leah Hamer Business Development Manager
CIMC Modular Building Systems, Australia
- 1245 Networking Luncheon

STREAM ONE: RESIDENTIAL	STREAM TWO: COMMERCIAL	STREAM THREE: PRECAST CONSTRUCTION
<p>1400 Session One Beyond Affordable housing: Moving away from the misconception of the suitability of modular for low cost projects Affordable housing considerations have been an important aspect for city planners for the past several years. Modular for low cost projects has created a policy and planning framework through which it can effectively respond to affordable housing issues. New generation of prefab homes has an exciting blend of highly modular methods and compelling design. Innovations in manufacturing and preassembling methods reduce on-site installation time dramatically. Joshua Hunt (Hunter) Director Wanhua Modular Projects, China</p> <p>1445 Session Two Agile housing model for future proofing Housing today does neither reflect the true needs of people nor respond to the environment we live in. Agile housing model attempts to address the challenge with both conviction and strategies for execution. Family life cycle and housing life cycle need to work hand-in-hand to reduce carbon foot print and make the world a greener place to habit and enjoy. The house showcased here is informed in its resolution by professional attention and skill applied to interiors, energy and sustainability and an architectural attitude that regards modularity as a technique in the service of conventional aspirations. When engineered efficiency, which lies at the heart of modular fabrication, is processed architecturally it becomes strongly identified with culturally determined preferences. An optimise habitat that enshrines the idea of domesticity is the result. Waco Tan Founder & CEO PowerHouse Homes, Australia</p> <p>1530 Afternoon refreshments</p> <p>1600 Session Three Accelerating building schedule using advanced BIM in Modular Prefab Construction <ul style="list-style-type: none"> Understanding the concept of BIM and its impact on Modular and Precast Construction Adopting advanced BIM protocols and establishing workflows for offsite fabrication Facilitating the prefabrication process to increase productivity during construction Examining the repeatable building elements Utilising standard components and mass production Ricardo Bagagem BIM Manager Meinhardt, Thailand</p> <p>1645 Session Four Modular construction: The answer to affordable housing With the demand for affordable multifamily housing growing – and funding scarce – new construction struggles to keep up with the need. Developers are discovering that modular construction may help to fill this gap because of its lower cost and quick turnaround. Since modular projects are replicable, they save design costs, and the process inherently reduces time since site work and building construction occur simultaneously. James Lim Director Superspan, Malaysia</p> <p>1730 End of Conference</p>	<p>1400 Session One Modular Construction Engineering - Challenges in design, construction and approvals: How the engineering design process can be better utilised to yield result In avoiding time delays and with an aim to deliver quality products, developers and builders are required to set up an integrated partnership. With strong associations with module manufacturers this creates effective project delivery. The complete delivery of the project which covers all aspects of the work of designing, documenting, constructing and financing of prefabricated modular buildings will be properly executed in this manner. John Lucchetti Principal, Hydraulic Section Head Wood & Grieve Engineers, Australia</p> <p>1445 Session Two Choosing modular construction for Island hotel resorts Evaluating modular construction for Island hotel resorts, the key considerations: <ul style="list-style-type: none"> Will the manufacturers be able to meet the quality standards for the resort hotel rooms? What are the key logistics and transport constraints? What are the onsite construction constraints? Will modular affect maintenance and refurbishment of rooms? Andrew Lian Director Alda Consultants, Australia</p> <p>1530 Afternoon refreshments</p> <p>1600 Session Three Establishing new, creative and sustainable modular buildings The end product of a modular building can look stagnant and uninspiring. Jon has successfully designed and created a wide range of structures of all scales and in all sectors to demonstrate the true creative potential of modular construction. The techniques used show how cutting edge technology and construction methods increase productivity and functionality of a building. Jon Sealey Design Director Marques and Jordy, Thailand</p> <p>1645 Session Four- Panel Discussion Build Lean – BIM Adoption in Fast Track Construction BIM is a new three-dimensional modelling technology, which allows a building project to be explored and reviewed digitally, even before construction begins. BIM is as game-changing technology, with the ability to engender greater integration and collaboration between building professionals working across the construction value chain. The speaker will examine the key benefits and the adoption of BIM in greatly enhancing the construction sector and building productivity. Panelists: Ricardo Bagagem BIM Manager Meinhardt, Thailand Matthew Egan Managing Director MODULARIZE, UK</p> <p>1730 End of Conference</p>	<p>1400 Session One Building hotels using precast concrete and prefabrication technology for a speedy delivery - Hear from Marriott International Hotel Through this session Karim will highlight the how the adoption of modular building in hotel construction achieve speed and quality. He will discuss how Marriott is using modular construction on a global basis to achieve speed, cost control, and quality to market, as well as ultimately create incredible experiences for their guests. Karim Khalifa Senior Vice President, Global Design Strategies Marriott International, United States of America</p> <p>1445 Session Two: Joint Session Game - Changing Technologies: Driving productivity with Prefinished Volumetric Construction (PPVC) - Crowne Plaza case study The use of PPVC system in the Crowne project enables buildings to be delivered in up to half the time of traditional methods of construction. It also provides up to 75% savings in manpower, a more sustainable construction by reducing carbon footprint, as well as lower running costs. <ul style="list-style-type: none"> Evaluating the key considerations and best practices in design, fabrication, transportation and installation of PPVC building Analysing the flexibility and systemization of PPVC design in creating aesthetically pleasing and architecturally unique buildings Thierry Brezac Project Director Dragages, Singapore Nonda Katsalidis Founding Director Fender Katsalidis Architects & Unitedised Building Limited, Australia</p> <p>1530 Afternoon refreshments</p> <p>1600 Session Three The New Frontier of Prefab Technology: Developing silver bullet technologies that will bring construction into the 21st Century—A case study by Laing O’ Rourke The future of the construction industry is here already. Now, technology-driven reform that makes construction less labour-intensive is being proposed – but is it the game changer the industry needs? 3D printing has been used over recent years to print small scale objects. However, some architects and other construction professionals are looking at introducing such printing as a new construction technology. The construction industry is ready to take advantage of 3D printing and its benefits. James Gardiner Lead of Design & Innovation at the Engineering Excellence Group Laing O’Rourke, Australia</p> <p>1645 Session Four Prefab Revolution: Modular Building Envelopes Design and Construction <ul style="list-style-type: none"> Examining the pros and cons of this type of modular construction and precast facades: curtain walls, precast and other types of modular facades Understanding the potential benefits of various types of modular building envelope elements Mitigating risks associated with the adoption of modular building envelope construction Mathieu Meur Managing Director Meinhardt Facade Technology, Singapore</p> <p>1730 End of Conference</p>