



In cooperation with



**The Programme of the 2nd International Conference on Rehabilitation and Maintenance in Civil Engineering (2ndICRMCE)
Solo, 8-10 March 2012**

The Sunan Hotel

Jl. Ahmad Yani No. 40, Solo 57143, Indonesia

date /day	time	Activities	Venue
8 th March 2012			The Sunan Hotel
Thursday	7.30 - 9.00	Registration	
	9.00 - 10.00	Opening Ceremony Welcoming speech 1 (Chair of the Organizing Committee of the 2 nd ICRMCE Dr. Rintis Hadiani) Welcoming speech 2 (Rector the Universitas Sebelas Maret Prof. Ravik Karsidi) Opening speech (Minister of Public Works the Republic of Indonesia) Photo session Announcement	Room 1
	10.00 - 10.20	Refreshment / morning break	
	10.20 - 11.50	Plenary session chairman : Dr. Ary Setyawan	
	10.20 - 10.50	Invited Speaker 1. Use of FRP in Egypt, Research Overview and Applications Prof. Mohamed A Mohammadien (Suez Canal University, Egypt)	Room 1
	10.50 - 11.20	Invited Speaker 2 Development of Underground Water Extraction System for Karst Regions with Innovative Technologies and Adapted Operating System Pilot Plant in Java Indonesia Prof. Franz Nestmann (Karlsruhe Institute of Technology, Germany)	Room 1
	11.20 - 11.50	Addressing Infrastructure Durability and Sustainability by Self Healing Mechanisms (Recent Advances in Self Healing Concrete and Asphalt Assoc. Prof. Erik Schlangen (Delf University of Technology, the Netherlands) Announcement	Room 1
	12.00 - 13.00	Lunch break	
	13.00 - 15.00	Parallel session	Room 1, Room 2, Room 3, Room 4
	15.00 - 15.20	Refreshment / afternoon break	
	15.20 - 17.00	Parallel session	Room 1, Room 2, Room 3, Room 4
9 th March 2012			The Sunan Hotel
Friday	7.30 - 8.30	Registration	
	8.30 - 10.00	Plenary session chairman : Dr. Budi Yulianto	
	8.30 - 9.00	Invited Speaker 4. Innovative Solution for the Construction and the Repair of Hydraulic Structures Prof. Harald S. Mueller (Karlsruhe University of Technology, Germany)	Room 1
	9.00-9.30	Invited Speaker 5. Durable and Sustainable Road Construction for Developing Countries Prof. A.A.A. Molenaar (Delf University of Technology, the Netherlands)	Room 1
	9.30-10.00	Invited Speaker 6. Performance Criteria to Assess Shrinkage Cracking Tendency in Concrete Overlay Assoc. Prof. S. A. Kristiawan (Universitas Sebelas Maret, UNS-Solo, Indonesia) Announcement	Room 1
	10.00 - 10.20	Refreshment / morning break	
	10.20 - 11.40	Parallel Session	Room 1, Room 2 Room 3, Room 4
9 th March 2012	11.40 - 13.20	Lunch break and Friday praying for moslem	
Friday	13.20 - 15.00	Parallel Session	Room 1, Room 2 Room 3, Room 4
	15.00 - 15.20	Refreshment / afternoon break	
	15.20 - 16.00	Closing ceremony	Room 1
	16.00 - 18.00	Campus Tour to Universitas Sebelas Maret (UNS-Solo)	Auditorium / Rectorate
	18.15 - 21.00	Conference Dinner and Cultural Performance	Auditorium / Rectorate Building, Universitas Sebelas Maret (UNS-Solo)

10th March 2012

Saturday

7.00 - 8.00

Preparation for Conference Tour

The Sunan Hotel Parking Lot

8.00 - 17.00

Conference Tour to Borobudur and Prambanan Temple

Borobudur and Prambanan

Parallel session (the 1 st day)			
date /day	time	Presentation	Venue
	13.00 -15.00	Group A : Experiences in Building Maintenance and Rehabilitation Chairman : Dr. Sholihin Asad	Room 1
	13.00-13.20	Some Common Maintenance Problems and Building Defects: Our Experiences <i>Ahmad Suffian Sulaiman</i>	A1-013
	13.20-13.40	Manufacture and Maintenance of Concrete Floating Docks in Persian Gulf (A Case Study) <i>Mohammad Hasan Ramesht and Mohammad Ali Mehdizadeh Tavasani</i>	A4-075
	13.40-14.00	Assessment of Concrete Quality in Libya <i>Mohamed .S. Alazhari and Milad Alshebani</i>	A5-078
8 th March 2012 Thursday	14.00-14.20	Reconstruction and Retrofitting of Buildings after Recent Earthquakes in Iran <i>Tariq Mahdi and A. Mahdi</i>	A6-081
	14.20-14.40	Padang Liquefaction Due to September 30 th 2009 Earthquake <i>Abdul Hakam and E. Suhelmidawati</i>	A8-102
	14.40-15.00	Status of Caramoan Peninsula Road: Why People Preferred Traveling by Sea Rather than Passing in Such Highway <i>Raymundo. V. Romero</i>	A9-103
	13.00 -15.00	Group B : Assessment on the Improvement of Building and Infrastructure Performance Chairman : Dr. S A Kristiawan	Room 2
	13.00-13.20	Finite Element Analysis of the Movement of the Tie-Back Wall in Alluvial-Silty Soi <i>Agus Setyo Muntohar and Hung-Jiun Liao</i>	B1-003
	13.20-13.40	A Seismic Analysis Model for the Evaluation of Retrofitted Old RC Buildings <i>M. Zeinoddini and Ali Dabiri</i>	B2-004
8 th March 2012 Thursday	13.40-14.00	Seismic Assessment of a Full-Scale Double-Storey Residential House using Fragility Curve <i>Nor Hayati Abdul Hamid and Nor Mayuze Mohamad</i>	B3-008
	14.00-14.20	Comparison of Wave Transmission Characteristic on Submerged Rubble Mound Breakwater with Two Different Type of Armor Unit <i>Dayat Indri Yulastuti and A. M. Hashim</i>	B4-010
	14.20-14.40	Determination the Response Modification Factors of Buckling Restrained Braced Frames <i>Mussa Mahmoudi and Mahdi Zaree</i>	B5-012
	14.40-15.00	Structural Performance of Square Concrete Columns Wrapped with CFRP Sheets <i>Belouar Abdelghani, R. Benzaid and N. Chikh</i>	B6-018
	13.00 -15.00	Group E : Strategy and Technique in Building and Infrastructure Maintenance Chairman : Dr. A P Sudarno	Room 3
	13.00-13.20	Assessment of Bridge Management System in Iran <i>Mehran Gholami and Abdul Rahman Bin Mohd Sam</i>	E2-012
	13.20-13.40	Comparative Cost Analysis of Possible Seismic Retrofitting Schemes for Multi-Story Unreinforced Masonry Building <i>Sushanta Roy, Md. Shahriar Rahman Khan and Syed Ishtiaq Ahmad</i>	E3-015
8 th March 2012 Thursday	13.40-14.00	Sensitivity Analysis and Productivity Study of Directpipe Technology by Using Simulation <i>Apif M Hajji</i>	E5-032
	14.00-14.20	The Utility Theory in Maintenance and Repair Strategy <i>Oleg Kaplinski</i>	E6-041
	14.20-14.40	The Support of Building Management in the Aspect of Technical Maintenance <i>Marcin Gajzler</i>	E7-046
	14.40-15.00	In-situ health assessment of a poorly executed pre-stressed in-service concrete bridge and suggesting a rehabilitation strategy – A Case Study	E11-082

	13.00 -15.00	Group G: Technique for Structural and Material Performance Improvement Chairman: Prof. Wimpie Agung N Aspar	Room 4
	13.00-13.20	Engineering Quality Improvement of Kuantan Clay Subgrade using Recycling & Reused Materials <i>Achmad Fauzi, Usama Juniansyah Fauzi and Wan Mohd Nazmi</i>	G4-009
	13.20-13.40	Effects of Oil Palm Shell and Curing Time to The Load-Bearing Capacity of Clay Subgrade <i>Lillian Gungat, Elsa Eka Putri, and Jodin Makinda</i>	G7-026
8 th March 2012 Thursday	13.40-14.00	Performance of Foamed Asphalt Under Repeated Load Axial Test <i>Sri Sunarjono</i>	G9-021
	14.00-14.20	The Prediction of Fatigue Life Based on Four Point Bending Test <i>F.P. Pramesti, A.A.A. Molenaar and M.F.C. van de Ven</i>	G36-127
	14.20-14.40	Ferrocement Jacketing for Restrengthening of Square Reinforced Concrete Column Under Concentric Compressive Load <i>A. B. M. Amrul Kaish, Md. Rabiul Alam and Md Abdul Wahed</i>	G12-038
	14.40-15.00	Application of ACM Brace Retrofitting Countermeasure to Steel Structure <i>Tomiya Takatani</i>	G14-042
	15.20 -16.40	Group A : Experiences in Building Maintenance and Rehabilitation	Room 1
		Group C : Rehabilitation and Maintenance for Heritage Building Chairman : Dr. Syafii	Room 1
	15.20-15.40	Lesson Learned from 27th May 2006 Yogyakarta Earthquake Case of Building with Long Span of Roof Structure <i>Ade Lisantono and Yoyong Arjadi</i>	A11-125
	15.40-16.00	Investigation on wall crack damage in its proposed rehabilitation method <i>Sholihin Asad, Mukahar and Mochammad Sukiman</i>	A12-132
8 th March 2012 Thursday	16.00-16.20	Conservation of Islamia College Building in Pakistan <i>Muhammad Ayub, Khan Shahzada, Amjad Naseer, and Muhammad Shoaib</i>	C3-068
	16.20-16.40	Preservation of Historical Monumental Structures using Fibre Reinforced Polymer (FRP)-Case Studies <i>S.Saileysh Sivaraja, T.S.Thandavamoorthy, S.Vijayakumar, S. Moses Aranganathan and A.K.Dasarathy</i>	C6-118
	15.20 -17.00	Group B : Assessment on the Improvement of Building and Infrastructure Performance Chairman : Dr. Kusno A. Sambowo	Room 2
	15.00-15.20	Combined Use of Non-Destructive Tests for Assessment of Strength of Concrete in Structure <i>Akash Jain, Ankit Kathuria, Adarsh Kumar, Yogesh Verma, and Krishna Murari</i>	B8-021
	15.40-16.00	Flexural Behaviour of External Reinforced Concrete Beams <i>Rudy Djamaluddin</i>	B9-022
	16.00-16.20	Long-term Behaviour of Prestressed Basalt Fibre Reinforced Polymer Bars <i>Maximus Pearson, Ted Donchev, Juan Salazar</i>	B11-030
8 th March 2012 Thursday	16.20-16.40	Time Dependent Reliability Analysis of Steel I Bridge Girder Designed Based on SNI T-02-2005 and SNI T-3-2005 Subjected to Corrosion <i>Muhammad Sigit Darmawan</i>	B13-037
	16.40-17.00	Hybrid Precast Concrete Column and Sandwich Concrete Beam under Static Loading <i>Akmaluddin and Suryawan Murtiadi</i>	B16-052
	15.20 -17.00	Group D : Testing Method and Advanced Technology for Building Rehabilitation Chairman : Dr. Budi Yulianto	Room 3
	15.20-15.40	Damage Detection in an Offshore Jacket Platform Using Genetic Algorithm Based Finite Element Model Updating with Noisy Modal Data <i>H. Malekzehtab and A. A. Golafshani</i>	D4-051
	15.40-16.00	Pencil Pressuremeter Testing to determining p-y Curves for Laterally Loaded Deep Foundations <i>Farid Messaoud</i>	D5-056
8 th March 2012 Thursday	16.00-16.20	Analysis of Correlations between Cone Penetrometer and Pencil Pressuremeter Parameters <i>Farid Messaoud</i>	D6-057

	16.20-16.40	Displacement Measurement of Soil Nail walls using close range photogrammetry <i>Farid Esmaili and Masood Varshosaz</i>	D8-066
	16.40-17.00	Utilization of Ultra-High Performance Fibre Concrete (UHPFC) for Rehabilitation – A Review <i>Bassam A. Tayeh, B. H. Abu Bakar, M. A. Megat Johari, and Yen Lei Voo</i>	D9-073
	15.20 -17.00	Group G: Technique for Improvement of Structural and Material Performance Chairman : Drs. Setya Budi. Med	Room 4
	15.00 -15.20	An Innovated Technology for Retrofitting of Masonry Domes on Historical Building <i>Mohammad Ghasem Sahab and S.Maede Moeeni</i>	G15-044
	15.40-16.00	The utilization of Self Compacting Concrete (SCC) in producing hollow concrete panel wall to provide rapid shelter for post disaster area <i>Mochamad Solikin, Basuki, and Budi Setiawan</i>	G18-058
8 th March 2012 Thursday	16.00-16.20	Torsional Strength of Ferrocement “U” Wrapped Normal Strength Beams with only Transverse Reinforcement <i>Gopal Charan Behera, Rao T. D. Gunneswar, and Rao C.B.K</i>	G23-064
	16.20-16.40	Characteristic of ‘Tulakan’ Soil as Natural Pozzolan to Substitute Portland Cement as Construction Material <i>Yenny Nurchasanah</i>	G24-072
	16.40-17.00	Overview and Preliminary Study of Approach -Slab Design Concept for Road Bridges <i>Mohd Idrus Mohd Masirin, and Rasimah Md Zain</i>	G25-083

Parallel session (the 2nd day)

date /day	time	Presentation	Venue
	10.20 -11.40	Group E : Strategy and Technique in Building and Infrastructure Maintenance Chairman : Dr. Ary Setyawan	Room 1
	10.20 - 10.40	The Influence of Solutions Adopted at the Stage of Planning the Building Investment on the Accuracy of Cost Estimation <i>Agnieszka Dziadosz</i>	E8-053
9 th March 2012 Friday	10.40 - 11.00	Post-Construction Problems of Embung in Lombok Island and the Operation and Maintenance Works <i>Yusron Saadi</i>	E12-120
	11.00 - 11.20	The Maintenance Evaluation of Sungkur Irrigation System at Ponorogo Regency <i>Sobriyah, Sucipto and Agus Hari Wahyudi</i>	E13-130
	10.20 -11.40	Group B : Assessment on the Improvement of Building and Infrastructure Performance Chairman : Dr. Mamok Suprpto	Room 2
	10.20 - 10.40	Blind Source Separation Based Dynamic Parameter Identification of a Multi-Story Moment-Resisting Frame Building under Seismic Ground Motions <i>Agung Budipriyanto</i>	B17-055
	10.40 - 11.00	Mimicking Bone Healing Process to Self Repair Concrete Structure <i>Senot Sangadji and Erik Schlangen</i>	B19-124
9 th March 2012 Friday	11.00 - 11.20	Analysis of Rehabilitation Effect on the Improvement Capacity of Reinforced Concrete Beams with FEM <i>Meghdad Ahmadi</i>	B21-074
	11.20 - 11.40	Seismic Response of Asymmetrical Infilled Concrete Frames <i>Tariq Mahdi and V. Bahreini</i>	B24-080
	10.20 -11.40	Group G: Technique for Improvement of Structural and Material Performance Chairman : Prof. Wimpie Agung N Aspar	Room 3
	10.20 - 10.40	Seismic Protection of R/C Structures by a New Dissipative Bracing System <i>Marco Valente</i>	G26-088
9 th March 2012 Friday	10.40 - 11.00	Improving the Seismic Performance of Precast Buildings Using Dissipative Devices <i>Marco Valente</i>	G27-089
	11.00 - 11.20	Self Compacting Concrete with Recycled Traditional Roof Tile Powder <i>Bernardus Herbudiman and Adimulyawan Saptaji</i>	G28-092
	11.20 - 11.40	Mixed Concrete Optimization Using Fly Ash, Silica Fume and Iron Slag on SCC's Compressive Strength <i>Raharjo. D, Tawio and Subakti. A</i>	G34-122

	10.20 -11.00	Group F : Policy and Code on Building and Infrastructure Rehabilitation and Maintenance	Room 4
		Group B : Assessment on the Improvement of Building and Infrastructure Performance chairman : Dr. Syafii	
9 th March 2012 Friday	10.20 -10.40	Decision Making Framework for an Earthquake Resistant Building <i>Choo Kok Wah, Rozana Zakaria and Azlan Adnan</i>	F2-017
	10.40 - 11.00	Review of Indonesian Standard for Concrete Building Subjected to Fire <i>Suryawan Murtiadi</i>	F3-054
	11.00 - 11.20	Prediction of Deflection of the composite Profiled Steel Sheet MDF-board (PSSMDFB) Fkoor System <i>A.P. Rahmadi, W. H. Wan Badruzzaman and A. K. Arifin</i>	B43-135
	13.20-15.00	Group B : Assessment on the Improvement of Building and Infrastructure Performance Chairman : Dr. A P Sudarno	Room 1
9 th March 2012 Friday	13.20 -13.40	Sustainable Design for Unpiled-Raft Foundation Structures <i>Tan Kim Leong</i>	B28-096
	13.40 - 14.00	Analysis of the Integral Bridge by Finite Element Method <i>Aslam Amirahmad and A. Rahman Al Sinaidi</i>	B18-063
	14.00 - 14.20	True Nonlinear Seismic Response Analyses of Soil Deposits <i>Mahmud Kori Effendi</i>	B37-114
	14.20 - 14.40	Increase Spillway Capacity Using Labyrinth Weir <i>Mamok Suprpto</i>	B41-129
	14.40 - 15.00	Evaluation of the Use of Steel Bracing to Improve Seismic Performance of Reinforced Concrete Building <i>Hendramawat A Safarizki , S.A. Kristiawan, and A. Basuki</i>	B42-134
	13.20 -15.00	Group B : Assessment on the Improvement of Building and Infrastructure Performance Chairman : Dr. SA Kristiawan	Room 2
9 th March 2012 Friday	13.20 -13.40	Performance of CFRP Wrapped Square Reinforced Concrete Columns Subjected to Eccentric Loading <i>Ida Bagus Rai Widiarsa and Muhammad N.S. Hadi</i>	B30-101
	13.40 - 14.00	GFRP Strengthening and Applications of Unreinforced Masonry Wall (UMW) <i>S.Saileysh Sivaraja, T.S.Thandavamoorthy, S.Vijayakumar, S.MosesAranganathan, P.T.Rathnasheela and A.K.Dasarathy</i>	B40-123
	14.00 - 14.20	Analytical Study on the Strengthened Steel Plate Shear Walls by FRP Laminate <i>Fariborz Nateghi-Alahi and Masoud Khazaei-Poul</i>	B32-105
	14.20 - 14.40	Investigation on Dynamics Nonlinear Analysis of Steel Frames with Steel Dampers <i>Mohsen Khazaei and M. Shajaedin</i>	B38-117
	14.40 - 15.00	Structure Ductile Framework of Earthquake Resistant of High Rise Building on Exterior Beam-Column Joint with the Partial Prestressed Concrete Beam-Column Reinforced Concrete <i>Made D. Astawa, Tavio and I G P Raka</i>	B39-121
	13.20 -15.00	Group G: Technique for Improvement of Structural and Material Performance Chairman : Dr. Sholihin Asad	Room 3
9 th March 2012 Friday	13.20 -13.40	An Evaluation of the Tropical Soils Subjected physicochemical Stabilization for Remote Rural Road: <i>S. Y. Zolfeghari Far, K. A. Kassim, A. Eisazadeh and M. Khari</i>	G33-119
	13.40 - 14.00	Effect of Mixing Fiber Cocktail on Flexural Strength of Concrete <i>Liaqat A. Qureshi, M. Ilyas Sheikh and Tahir Sultan</i>	G11-036
	14.00 - 14.20	Effect of Reclaimed Asphalt Pavement on the Properties of Asphalt Binders <i>Arshad Hussain and Qiu Yanjun</i>	G35-126
	14.20 - 14.40	Assessing the Compressive Strength Properties of Semi-flexible Pavements <i>A. Setyawan</i>	G37-132
	14.40 - 15.00	Traffic Induced and Restrained Temperatura Stresses in a Conventional Rigid Pavement and Semi-rigid Layer: <i>A. Setyawan, S.E. Zoorob and K.E. Hasan</i>	G38-134
	13.20 -14.20	Group D : Testing Method and Advanced Technology for Building Rehabilitation Chairman : Dr. Kusno A Sambowo	Room 4
	13.20 -13.40	Seismic Upgrading Strategies for Non-Ductile Plan-Wise Irregular R/C Structures <i>Marco Valente</i>	D12-087

9 th March 2012	13.40 - 14.00	Evaluation of Bonding Strength Between Normal Concrete Substrate and Ultra High Performance Fiber Concrete as a Repair Material <i>Bassam A. Tayeh, B. H. Abu Bakar, M. A. Megat Johari and Yen Lei Voo</i>	D15-095
Friday			
	14.00 - 14.20	Non Destructive Testing of Bridge Pier - A Case Study <i>Rama Seshu D. and Dakshina Murthy N. R.</i>	D16-098

Conference Tour : 10th March 2012

Borobudur and Prambanan

Borobudur is one of the greatest Buddhist monuments in the world. Founded by a king of the Saliendra dynasty, it was built to honour the glory of both the Buddha and its founder, a true king Bodhisattva. The name Borobudur is believed to have been derived from the Sanskrit words *vihara Buddha uhr*, meaning the Buddhist monastery on the hill. Borobudur temple is located in Muntilan, Magelang, and is about 42 km from Yogyakarta city or about 87 km from Solo.

This colossal temple was built between AD 750 and 842: 300 years before Cambodia's Angkor Wat, 400 years before work had begun on the great European cathedrals. Little is known about its early history except that a huge army of workers worked in the tropical heat to shift and carve the 60,000 m³ of stone. At the beginning of the 11th century AD, because of the political situation in Central Java, divine monuments in that area, including the Borobudur Temple became completely neglected and given over to decay. The Sanctuary was exposed to volcanic eruption and other ravages of nature. The temple was not rediscovered until the 19th century. A first restoration campaign, supervised by Theodor van Erp, was undertaken shortly after the turn of the century. A second one was led more recently (1973-82).



Prambanan, named after the village, is the biggest temple complex in Java. It is actually a huge Hindu temple complex about 15 km north-east of Yogyakarta or about 40 km from Solo. Dedicated to the three great Hindu divinities, this temple with its decorated reliefs is an outstanding example of Siva art in Indonesia and the region.

It was built in the 9th century and designed as three concentric squares. In all there are 224 temples in the entire complex. The inner square contains 16 temples, the most significant being the 47 m high central Siva temple flanked to the north by the Brahma temple and to the south by the Vishnu temple. These three ancient masterpieces of Hindu architecture are locally referred to as the Prambanan Temple or Lorojonggrang Temple (Slender Maiden); the compound was deserted soon after it was completed, possibly owing to the eruption of

