

**FINAL PROGRAM OF THE FORTY FIRST INTERNATIONAL CONFERENCE ON
CEMENT MICROSCOPY**

**SPONSORED & ORGANIZED BY INTERNATIONAL CEMENT MICROSCOPY
ASSOCIATION (ICMA); WEBSITE: (WWW.CEMMICRO.ORG)**

APRIL 14-17, 2019

**BAHIA RESORT HOTEL, 998 WEST MISSION BAY DRIVE
SAN DIEGO, CALIFORNIA , U.S.A. 92109**

SUNDAY, APRIL 14, 2019

2:00 – 4:00 PM – **REGISTRATION**
BAHIA RESORT HOTEL
SAN DIEGO, CALIFORNIA, U.S.A.

MONDAY, APRIL 15, 2019

8:00 – 9:00 AM – **REGISTRATION**
BAHIA RESORT HOTEL
SAN DIEGO, CALIFORNIA, U.S.A.

9:00 – 9:20 AM – **Welcome & Opening Address**
Dr. Arturo G. Nisperos
ICMA General Chairman

9:20 – 9:30 AM – **Introduction of Keynote Speaker**
ICMA General Chairman

9:30 – 10:00 AM- **Keynote Address**
Anol K. Mukhopadhyay, Ph.D., P.G.
Research Scientist (TTI)
AD Graduate Faculty (Zachary Dept. of Civil Engineering)
Materials & Rigid Pavement
Texas A&M Transportation Institute (TTI)
Texas A&M University
College Station, Texas, U.S.A.

Topic: **“An Innovative Approach for Effective Utilization of Off-Spec
Ashes to Prevent ASR.”**

10:00 – 10:10 AM - **Program Introduction**

Dr. Herbert Poellmann
Program Committee Chairman

10:10 – 10:40 AM – **A BETTER APPROACH USING QXRD FOR CEMENT PHASE QUANTIFICATION**

Anol Mukhopadhyay
Texas A&M Transportation Institute
Texas A&M
College Station, Texas, U.S.A.

Ramnath M. Ganesh
Terracon Consultants
Chattanooga, Tennessee, U.S.A.

10:40 – 10:55 AM – **BREAK**

10:55 – 11:25 AM – **A PRELIMINARY STUDY OF 19TH CENTURY BINDING MATERIALS FROM TOKYO BAY SEA FORT NO. 1 (DAIICHI KAIHO)**

Tetsuya Katayama, Tomomi Sato
Taiheiyo Consultant Co., Ltd.
Sakura, Japan

Takatoshi Noguchi
Kanto Regional Development Bureau
MLIT, Yokohama, Japan

11:25 – 11:55 AM – **PORTLAND CEMENT-BASED MATERIAL WITH HIGH STRUCTURE STABILITY FOR HIGH TEMPERATURE AND HIGH PRESSURE WELL CEMENTATION ENGINEERING**

Xianshu Gao ^{1,2}, Zhaijun Wen, Jing Wang, Zhongchen Ma
State Key Laboratory of Green Building Materials
China Building Materials Academy
Beijing, P.R. China

⁽²⁾ State Key Laboratory of Oil & Gas Reservoir Geology & Exploitation
Southwest Petroleum University
Chengdu, Sichuan, P.R. China

11:55 – 12:10 PM – **Introduction of Exhibitors**

Dr. Stella Marusin and Dr. Ronny Kaden
Exhibit Committee Chairman & Co-Chairman

12:10 – 1:00 PM – **LUNCH BREAK**

1:00 – 5:00 PM – **PANEL DISCUSSION: CHEMISTRY OF CEMENT & CLINKER MICROSCOPY**

Conducted by: ANOL MUKHOPADHYAY, Workshop Coordinator & Chairman

- **Panelists:**

1. R. Diaz, E. Garcia, S. Torres, L. Velasquez of Centro de Investigacion y Desarrollo, CEMENTOS PROGRESO (CEMPRO) S.A., Guatemala: **“COMPARISON BETWEEN LIMESTONE CALCINED CLAY CEMENT (LC3) CONCRETE AND REGULAR CONCRETE BY SEM AND XRD ANALYSIS IN CEMENTOS PROGRESO GUATEMALA.”**
2. Chuck Buchanan of C3S Petrographic, Durkee, Oregon, U.S.A.: **“CLINKER MICROSCOPY IN THE PLANT.”**

TUESDAY, APRIL 16, 2019

8:00 – 8:05 AM – **REGISTRATION & WELCOME**

8:05 – 12:00 Noon – **PANEL DISCUSSION : ALKALI-SILICA REACTIVITY (ASR) – A 2019 PERSPECTIVE**

Conducted by Dr. ANOL MUKHOPADHYAY Workshop & Panel Discussion
Coordinator & Chairman

- **PANELISTS:**

1. Dr. Anol Mukhopadhyay of Texas A&M Transportation Institute, Texas A&M, College Station, Texas U.S.A. : **DEVELOPING PERFORMANCE ENGINEERED ASR RESISTANT CONCRETE BASED ON EMERGING RAPID AGGREGATE AND CONCRETE ASR TEST METHODS**

2. Dr. Tetsuya Katayama of Taiheiyo Consultants Inc., et. al. Sakura Japan: **“WHAT MADE THE STUDY OF ALKALI-CARBONATE REACTION (ACR) SO DIFFICULT? A HISTORY OF MISIDENTIFICATION AND MISCONCEPTION.”**

12:00 – 1:00 PM – **LUNCH BREAK**

1:00 – 1:30 PM - **TRANSMISSION ELECTRON MICROSCOPY INVESTIGATIONS OF FATIGUE-INDUCED CHANGES IN THE CEMENT STRUCTURE OF ULTRA-HIGH PERFORMANCE CONCRETE**

Gunnar Schaan, Sebastian Rybczynski, Martin-Ritter, Frank Schmidt-Dohl
Hamburg University of Technology
Hamburg, Germany

1:30 – 2:00 PM – **MECHANICAL PERFORMANCE OF HIGH BELITE CEMENT (HBC) PRODUCED WITH LOW GRADE LIMESTONE**

Zhongcheng Ma, Xianshu Gao, Haijun Wen, Jing Wang
State Key Laboratory of Green Building Materials
China building Materials Academy
Beijing, P.R. China

2:00 – 2:15 PM **BREAK**

2:15 -2:45 PM - **PETROGRAPHIC STUDY OF 19TH CENTURY MORTARS FROM RAILWAY BRIDGE AND TUNNEL IN THE CENTRAL MASSIF OF FRANCE**

Tetsuya Katayama and Yoko Ando
Taiheiyo Consultant Co. Ltd.
Sakura Japan

Vincent Thiery
Ecole des Mies de Douai
Civil Engineering & Environment Department
Douai, France

2:45 – 6:00 PM – AN “AFTERNOON OF FUN” AT THE BAHIA RESORT HOTEL TO SAVOR THEIR PRIVATE BEACH WITH WHITE SAND, CABANAS, AND FREE PADDLE WHEEL. THE WELL LANDSCAPED GROUNDS ARE GEORGEOUS WITH LAGOONS, GAZEBOS AND EVEN A RESCUED SEAL LAGOON

The Bahia Resort Hotel is located on a 14-acre peninsula on beautiful Mission Bay. It is close to shopping and restaurants in Mission Beach, and Belmont Amusement Park, SeaWorld, San Diego Zoo and Safari Park, Historic Old Town, and the exciting Gaslamp Quarter are all a short drive away.

COME AND ENJOY OUR ICMA BAYSIDE CONFERENCE WITH WATER VIEWS DURING THE DAY, AND FUN SAN DIEGO NIGHT LIFE IN THE EVENINGS CHECKING OUT MISSION BEACH AND BELMONT PARK!

WEDNESDAY, APRIL 17, 2019

8:00 – 8:05 AM – REGISTRATION & WELCOME

8:05 – 8:35 AM- Biogenic sulfuric acid Attack and Case Studies

Hugh (Xiaoqiang) Hou, Kimberley A. Steiner, John Fraczek, James A. Mahaney
Wiss, Janney, Elstner Associates, Inc.
Northbrook, Illinois, U.S.A.

8:35 – 9:05 AM – CURRENT STATUS : MICROSCOPICAL ANALYSIS OF CRACK-FILLING MATERIAL PRODUCED BY BACTERIA IN SELF-HEALING CONCRETE

Arturo G. Nisperos
Nisperos Petrographic Services (NPS)
Coarsegold, California, U.S.A.

9:05 – 9:20 AM – BREAK

9:20 - 9:50 AM - CLINKER SAMPLE EXCHANGE PROGRAM

Dr. Hugh Hou, Clinker Sample Exchange Committee Chairman

9:50 – 10:00 AM – **Closing Remarks**

Arturo G. Nisperos

ICMA General Chairman

Charles Buchanan, Jr. & Dr. Herbert Poellmann

Site Selection Committee Chairs

10:00 AM – 12:00 NOON – **FREE LUNCH FOR ALL PARTICIPANTS & RECOGNITION OF
SPEAKERS & EB/GUESTS**

Co-Sponsor: ROAN INDUSTRIES, North Carolina, U.S.A.

ADJOURNMENT

GUEST/SPOUSE PROGRAM

Guest/Spouse Program will be organized on demand for the 41st ICMA Conference in SAN DIEGO, CALIFORNIA, U.S.A. and details will be shared as registration progresses and will be announced in the ICMA webpage (www.cemmicro.org). Please in your registration state if a spouse or guests will accompany you at the conference. (Spouse & Guest Committee: Lourdes M. Nisperos-Chairman; Maria Poellmann & JoAnn Buchanan-Co-Chairmen).