



**NANO-TECHNOLOGY IN CONSTRUCTION
(GREEN AND SUSTAINABLE CONSTRUCTION)
(NTC 2019)
22-25 March 2019 Sharm ElSheikh, Egypt**



Conference program

Friday 22/03/2019

6.00 am – 7.00 am Pick-up Passengers by bus from HBRC, Dokki

7.00 am – 2.00 pm Travel To Sharm El-Sheikh City

2.00 pm – 5.00 pm Hotel Check in and Lunch

6.00 pm – 8.00 pm Hotel Dinner

8.00 pm – 10.00 pm **Registration, Opening Cermoney and Exhibition**

Moderators: Prof. Khalid El zahaby
Prof. Sherif Fakhry

Coordinator: Prof. Sayed Shebl

Sponsor Lectures

Saturday 23/03/2019



7.00 am – 9.00 am Hotel Breakfast

9.00 am – 10.30 am **Key – Note Lectures - 1** Main Hall

Moderators: Prof. Taha Mattar
Prof. Bryzgalov yury
Prof. Medhat Ibrahim

Coordinator: Prof. Dina Sadek

9.00 am – 9.30 am Lecture -1 Smart and Patterned Membranes for Water Desalination
Prof. Dr. Ahmed S. G. Khalil

9.30 am – 10.00 am Lecture -2 The structuring effects in the compositebuilding materials by ultra and nanoscale additives based on natural and man-made raw materials.
Prof. Yakovlev Grigory Ivanovich

10.00 am – 10.30 am Lecture -3 Building Physics, Energy Efficiency and Sustainability in the field of tension between prosperity, environmental protection, resource conservation and State-of-the-Art in Germany economical aspects.
Dr.-Eng. Saad Baradiy

10.30 am – 10.40 am Break

Saturday 23/03/2019 (continued)

10.40 am – 12.00 pm

Paper Session - 1

Main Hall

Moderators:

Prof. Medhat El-Mahllawy

Prof. Mohamed Adel Shebl

Dr. Sami Makharz

Coordinator:

Dr. Mahmoud Mokhtar



1115

Micro- Structure and Optical Characteristics of the Mixed Cu x (TiO₂) 1-x Nanoparticles

M. Hafez*, G. Said, S. Taha and H. Y. Zahran

1127

Effect of Nano Materials Combination on the Strength of Geopolymer Concrete

Menatalah Ahmed Kotop,Ahmed Fathy,M. S. El-Feky and Mohamed Kohail

1142

Inhomogeneous Quantum Dots, Optical properties and Application opportunity in Solar Energy

Izeddine Zorkan

1145

Evaluating the impact of Nano-magnesium calcite waste on the performance of cement mortar in normal and sulfate-rich media

H.A. Abdel-Gawwad*, Mohamed Heikal, Mona S. Mohammed, S. Abd El-Aleem, Hassan Soltan Hassan, S.R. Vásquez García⁶ and Alaa M. Rashad

1151

Enhancement of Physico-mechanical Properties of Graphene nanosheets Reinforced Cement Pastes for Self-sensing Structures

M.M. Mokhtar*, S.A. Abo El-Enein, M.S. Morsy and M.Y. Hassaan

1188 R

USE OF NANO-SIZED ADDITIVES IN CONCRETE AND CONSTRUCTION SOLUTIONS FOR PROVIDING ADHESION IN REPAIR WORKS

Khritankov VF, Pichugin AP, Smirnova OE, Shatalov A. A., Pichugin MA

1182 R

FINE-GRAINED CONCRETE MODIFIED WITH A SUSPENSION OF CHRYSOTILE NANOFIBERS

Yakovlev G., Drochytka R., IPervushin G., Grakhov V., Saidova Z., Gordina A., Shaybadullina A., Pudov I., A.E.M.M. El-Refai

1184 R

PILOT STUDIES ON GRAPHENE OXIDE INFLUENCE STUDYING ON DURABILITY OF CEMENT MORTAR

G.D. Fedorova, Cand. Sc., A.P. Scryabin, G. N. Alexandrov

12.00 pm – 12.10 pm

Break

12.10 pm – 1.30 pm

Paper Session - 2

Main Hall

Moderators:

Prof. Omar El nawawy

Prof. Hatem Geith

Prof. Hassan Allam

Coordinator:

Dr. Mohamed Mahmoud



1103

The Feasibility of Using Marble Cutting Waste in a Sustainable Building Clay Industry

Medhat S. El-Mahllawy*, Ayman M. Kandeel, Mahmoud L. Abdel Latif and Abdeen M. El Nagar

1110

Innovative Composite Materials for Strengthening Lime-based Mortars in Traditional Masonry Structures

M. Abdelmegeed*, M. Kassab, H. Shoukry, and S. Taha

1187 R

Study of the influence of carbon nanomaterials "Taunit" on the physical and mechanical properties of polymer composite materials Abris®

Galina Savchenkova, Olga Shashunkina and Tatiana Artamonova

1129

INVESTIGATION OF COMPRESSIVE STRENGTH OF RUBBERIZED GEOPOLYMER CONCRETE

ALY MUHAMMED ALY, M. S. EL-FEKY, MOHAMED KOHAIL

1133

Behavior of Reinforced Super Crete Loaded Columns under Elevated Temperature

Salah Abdel-Gawad Aly

1155

Thermal analysis of FRP- reinforced concrete beams

Mohamed Atef, Susan Ali and Hilal Hassan

1164

Seismic behavior of concrete encased composite columns with IPE and Pipe steel sections, embedded and semi embedded in foundation

Khaled Z. Sayed and Mohamed M. Salem

1192 R

Modeling and investigation of processes formation and properties diagnostic of nanomaterials

Bryzgalov Yury, Grakhov Valery, and Vakhrushev Alexander

1.30 pm – 3.00 pm

Hotel Lunch



- 1108 Effect of High Temperature on Punching Strength of Flat Slab in Compression Side
Said Taher , Islam El-Habbal and Peter kami
- 1126 Synthesis, Characterization of Ag@PANI core/shell Nanostructures using Solid State Polymerization Method
Neveen M. Farrage, A.H.Oraby, E.M. Abdelrazek and Diao Atta
- 1128 Earth Building for Affordable Housing in Egypt: A Comparative Study with Reinforced Concrete Building System
Prof. Dina M. Sadek, Assoc. Prof. Anwar Mahmoud and Dr. Ahmed A. Elsaid
- 1131 Water Demand Value For Concrete Mixes
Dr. Galal T. Abdo and Eng. Ezaat H. Arafa
- 1138 Optimization of chemical coagulation process in the treatment of drainage stream on Egypt
Ahmed Abd El Maguid , Mohamed Haikal and Mohamed Ali El-said1
- 1139 THE IMPACT OF POZZOLANA IN SECURING FIRE-RESISTIVE PROPERTIES OF CONCRETE
Tarek. Elsokary*, Hosam.El Din H. Seleem, and Alaa M. Rashad
- 1141 HYDRATION CHARACTERISTICS OF SILICA FUME - FLY ASH COMPOSITE CEMENT PASTES
T. M. EL-Sokkary
- 1144 Influence of some industrial wastes as a heavy aggregate on durability of concrete upon Utilization in the special constructions
Mahmoud Gharieb* Hamdy A. El-Sayed
- 1147 Synthesis and evaluation of novel bituminous materials for using in construction applications
Tarek M. Elsokkary , Elsayed M. Elnaggar , Mostafa A. shohide , Mohamed Elshafie and Amina Saleh
- 1149 Feasibility of Using Glass Fiber Reinforced Polymer Bars Resistance High Degrees of Temperature as Reinforcement for Reinforced Concrete Beams
Ahmed Goma Asran, Hatem Hamdy Ghith, Mohamed Nooman and Shady Khairy
- 1152 SBR System Performance for Removing Organics from oil Wastewater
Noran A. Yossry, Ahmed M.Noureldin , and Mostafa M.Mostafa
- 1157 EFFECT OF SILICA FUME ADDITION ON THE PHYSICO-MECHANICAL PROPERTIES OF MAGNESIA CEMENT PASTES MIXED BY SEAWATER
A.M. KANDEEL
- 1158 R The by-product thermoplastic additive for concrete and mixes
Gumenyuk A.N., Yakovlev G.I., Polyanskikh I.S., Gordina A.F and Grahov V.P
- 1159 R Gypsum Composition with Siltstone-Based Mineral Modifier
Yakovlev G.I., Gordina A.F., Khritankov V. F., Shaybadullina A.V., Khazeev D.R., Khozin V.G., Bazhenova I.S and Ivakina A.V.
- 1160 R Technical carbon for modification of the structure and properties of the gypsum binder
Yakovlev G. I., Pervushin G. N., Gordina A. F., Buryanov A.F., Nikitina S.V., Shaybadulina A. V and Protodyakonova T. L
- 1161 R Constructional and thermal insulation material based on high-strength anhydrite binder
Yakovlev G. I., Kalabina D. A., Drochytko R., Grahov V. P., Khozin V.G., Gordina A. F., Bazhenov K. A and Troshkova V. V.

- 1163 Performance of Bio-Mortar under Elevated Temperature
Hamdy A. Abdel-Gawwad and Hesham K. Amine
- 1169 Behavior of Composite Columns Connections with Concrete Footings under Monotonic Horizontal Loading
Ahmed M. Mourad, Amira Shehata and Hassan Allam
- 1170 Removal of Chromium from Tannery Wastewater using Untreated Bagasse: Kinetic and Isotherm Studies
Safaa. M. Ragheb, Nouran Y.Morgan , and Ahmed Abd Magied
- 1171 Durability of Concrete Lining of the Canals Made With Nano Pozzolanic Material and Glass Fiber Which Exposed to Aggressive Condition
Mahmoud K. Mahmoud*
- 1174 The Conservation of Cultural Heritage Buildings Using Different Pozzolanic Materials
G. Attia, M. Abdelmegeed, S. Taha, and G. Said
- 1176 Co-treatment of Municipal Wastewater and Landfill Leachate in an Activated Sludge Sequencing Batch Reactor
Khaled M.Naguib, and Sherien M.Ahmed
- 1178 Review: On the Effect of stressing pockets on the structural behaviour of Post-tensioned reinforced concrete slabs
Ahmed Abdelmoniem, Khaled Heiza, Hamdy Gheith and Ayman Hussien
- 1179 Literature Review for Strengthening of Existing Reinforced Concrete Structures using Steel and FRP Plates
N. Y. ELWakkadI , KH. M. Heiza and M. Elmahroky Prof Dr Aqial eladly
- 1180 REVIEW ON The Effect of Cyclic Loading on the Structural Behavior of Reinforced Concrete Elements
N. Y. ELWakkad , KH. M. Heiza, M. Elmahrokyand Prof Dr Aqial eladly
- 1181 Review on – Self-Curing Concrete
N. Y. ELWakkad , KH. M. Heiza and Prof Dr Aqial eladly
- 1183 R LOW WATER REQUIREMENT CEMENTS OF CENTRIFUGAL IMPACT GRINDING
M.S.Garkavi , A.V.Artamonov , E.V. Kolodezhnaya , A.V. Pursheva, M.A. Akhmetzyanova and E.A.Khudovekova
- 1185 R ANOMALOUS VARIATIONS IN VISCOSITY OF EPOXY RESINS AND IN PLASTICITY OF BITUMEN UPON ADDING CARBON NANOTUBES
V.G. KHOZIN, R.K. NIZAMOV, I.A. STAROVOITOVA, E.S. ZYKOVA, D.A. AYUPOV,A.E.M.M. El-Refai
- 1186 R THE USE OF PLASTICIZERS IN MODIFIED GYPSUM COMPOSITES
Petropavlovskaya V. B., Zavad'ko M. Yu., Petropavlovskii K.S. Novichenkova T.B., Bur'yanov A.F.



- 1116 Chitosan Ibuprofen Interaction: Molecular Modeling Approach
El-Sayed Mahmoud, Amina Omar and Ahmed M. Bayoumy
- 1117 Molecular Modeling analyses for the Effect of Solvents on the Electronic Properties of Fullerenes
Medhat Ibrahim and Asmaa Ibrahim
- 1122 Effect of Alkaline on the Electronic Properties of Carboxylic Acids
Hanan Elhaes, Alia S. A-E. Ghanem, Hend Ahmed and Ahmed Fahmy
- 1123 On the Molecular Modeling Structure of Sodium Carboxymethyl Cellulose Decorated with Glycerol and Acetic Acid
Sherif El-Kohdary, Rania Badry, HananElhaes and Nadra Nada
- 1124 Polypyrrole/MnO₂/rGO in the Presence of Multi-walled Carbon Nanotubes
S. A. El-Khodary and M. Ibrahim
- 1125 The effect of Acetic Acid on the Electrical and Thermal Properties of Plasticized Sodium Carboxymethyl Cellulose
Sherif El-Kohdary, Rania Badry*2, Hanan Elhaes and Nadra Nada
- 1190 Structural Performance of Self-Compacting Concrete Beams Containing Nano Silica and Nano Manganese Ferrite
Asmaa Y. Barakat, Gehan A. Hamdy, Mostafa Mostafa, Hossam Eldin Ahmed
- 1172 RECYCLING OF THE WASTE PRODUCT REPLACEMENT ON THE PHYSICO MECHANICAL AND CHEMICAL PROPERTIES OF THE CEMENT PASTES.
Nourhan Abd El Rhman and Hoda Ibrahim



6.00 pm – 8.00 pm

Hotel Dinner

9.00 pm-11.00 pm

Free tour for naama bay

Sunday 24/03/2019



7.00 am – 9.00 am Hotel Breakfast

9.00 am – 10.00 am **Key – Note Lectures - 2** Main Hall

Moderators: Prof. Khalid Hieza
Dr. Eng. Saad Baradiy
General. Alaa Abdel zaher

Coordinator: Dr. Anwar Mahmoud

9.00 am – 9.30 am Lecture -1 Nano-modification of Portland-Cement Concrete Structure and Properties
Prof. gintautas skripiūnas

9.30 am – 10.00 am Lecture -2 Fireproofing Induction; Tests
Prof. Sayed Shebl

10.00 am – 10.10 am Break

Sunday 24/03/2019 (continued)



10.10 am – 11.30 pm

Paper Session - 3

Main Hall

Moderators:

Prof. Yousry Hassan

Prof. Saleh Al Awny

Prof. Salah Abdel Gawad

Coordinator:

Dr. Hamada Shoukry

- 1102** NANOTECHNOLOGIES THE GATE OF INNOVATIVE SOLUTIONS FOR ECONOMIC GREEN AND SUSTAINABLE CONSTRUCTION
Al-Sharkawy, A.
- 1118** Polyaniline Substituted with Alkali and Alkaline Earth Elements: Molecular Modeling Approach
Rania badry, Hanan Elhaes and Medhat Ibrahim
- 1119** Mapping the molecular electrostatic potential of CNT
H. Ezzat, R. Badry, H. Elhaes and M.A. Ibrahim
- 1120** Molecular Modeling Analyses for the Effect of Alkaline Elements on the Structure and Electronic properties of Glycine
Hanan Elhaes, Amina Omar, Haitham Mohammed, Ahmed Refaat and Medhat Ibrahim
- 1121** Spectroscopic Study for the Soil in the Nile Delta Region
Osama Osman and Hend Ezzat
- 1135** Graphene Oxide Reinforced Polycarbonate Nanocomposite: Fabrication and Characterization for Thermal and Mechanical Properties Investigations
Dr. Sami Makharz
- 1177** STATE OF THE ART REVIEW OF STRUCTURAL HEALTH MONITORING FOR BRIDGES USING WIRELESS SYSTEM TECHNIQUES
KHALED MOHAMED HEIZA , OMAR SALAH , ABDELRAHMAN ELBAZ ,MOHAMED ABDEL KHALEK HAWWAS ,OMAR ALI ELNAWAWY MAGDY ABDEL HAMID TAYEL
- 1191** Enhanced photocatalytic degradation properties of SnO₂ nanoparticles synthesized by using different plant extracts
S.A. Mousa, H. H. Hassan, A. A. Ebnalwaled and S. A. Khairy

11.30 pm – 11.40 pm

Break



11.40 pm – 1.00 pm	Paper Session - 4	Main Hall
	Moderators:	Prof. Maha El shafei Prof. Yasser El Sayed Prof. Raafat Shemees
	Coordinator:	Dr. Ahmed Adel
	1137	Integration between BIM and virtual reality for enhancing the building and occupants during the operational phase Abdullah Badawy
	1143	REMOVAL OF RADIONUCLIDE CONTAMINATED GROUNDWATERBY MICROBIAL RREDUCTION AND RESIDUAL ELECTRON DONOR AND SEDIMENT AGEING Sherien M.Ahmed and Khaled M.Naguib
	1150	Performance of using surfactant modified zeolite (SMZ) to remove the organic constituents present in oil wastewater Maha M. El-Shafei, Ahmed M.Noureldin , and Mostafa and M.Mostafa
	1154	Smart Coating Material; a Comparative Study of the Economic Feasibility of Employing Self-Healing and Self-Cleaning Building Coatings Abdel Aziz F Mohamed, Amr A Elhamy and Nada M El Araby
	1156	Plants as an Environmental Way to Reduce the Concentration of Carbon Dioxide in Lecture Halls in Educational Buildings Ahmed .M. Helal, Essam B. Abo Elenan, Abbas M. El-Zafaraney and Eid M. Koriesh
	1166	Hydrological and meteorological evaluation of ground water in Matrouh city, Egypt – Case study Hala A. Hegazy, A.M. Abdel Meguid, M.S. Mahmoud and S.M. Ragheb
	1173	Approach to fire Safety for Cladding of Buildings Abhishek Chhabra
	1189	THE EFFECT OF USING ENHANCED MATERIALS WITH NANO TECHNOLOGY ON INDOOR AIR QUALITY IN THE EGYPTIAN EDUCATIONAL BUILDINGS “DEPARTMENT OF ARCHITECTURE, FACULTY OF ENGINEERING, ASSIUT UNIVERSITY AS A CASE STUDY” Reham A. Sultan* and Mahmoud M. Mourad
1.00 pm – 1.30 pm		Closing Ceremony including Conference Conclusions, Recommendations and Certificates (Main Hall)
	Moderators	Prof. Sherif Fakhry Prof. Yakovlev Grigory Ivanovich Prof. Magdy Helal Prof. Sayed Shebl
	Coordinator	Dr. Hamada Shoukry
1.30 pm – 3.00 pm		Hotel Lunch
6.00 pm – 8.00 pm		Hotel Dinner
9.00 pm – 11.00 pm		Free tour for Soho Square

Monday 25/03/2019

7.00 am – 9.00 am	Hotel Breakfast
9.00 am – 10.30 am	Hotel Check out
10.30 am – 11.00 am	Pick-up Passengers by bus from Hotel



Thanks for your contribution and we look forward to seeing you next year March 2020

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