



1st Annual Conference of the Institute

Sustainable Technologies and Engineering

STEC'2024

Mansoura College Campus, Mansoura, September 28-29, 2024

Detailed Program

1st Annual Conference of the Institute

Sustainable Technologies and Engineering

STEC'2024

Mansoura College Campus, Mansoura, September 28-29, 2024

Under the Auspices of

Prof. Dr. Ibrahim Saber

President of the Board of Trustees of Mansoura College Association

Prof. Dr. Hassan Elshenawy

Vice President of the Board of Trustees of Mansoura College Association

Prof. Dr. Adel Dief

Chairman of the Board of Directors of the MC Higher Institute of Eng. & Technology

Conference Chairman

Prof. Dr. Ebrahim A. Badran

Dean of Mansoura Higher Institute of Engineering &
Technology

Conference Cochairman

Prof. Dr. Mohammed Amin

Deputy Director of the Institute for Scientific Research and
Community Service

Conference Highlights

Sustainable Technologies and Engineering conference brings together leading experts, researchers, and industry professionals to explore innovative solutions for the challenges

today. With a focus on sustainability, this conference provides a platform for exchanging cutting-edge research and advancements in engineering and technology. Participants will engage in discussions on how to harness technological innovation to achieve long-term environmental sustainability, improve resource efficiency, and promote eco-friendly practices across various sectors.

Conference Chairman
Prof. Dr. Ebrahim Badran

1st Annual Conference of the Institute

Sustainable Technologies and Engineering

STEC'2024

September 28-29, 2024, Mansoura College Campus, Mansoura, Egypt

Date	Time	Hall 1	Hall 2	Hall 3	Hall 4
Saturday 28	11:00-11:45	Registration			

	Opening Ceremony (Hall 2)				
	12:00-12:10	Dean's speech			
	12:10-12:20	Conference Chairman's Speech			
	12:20-12:30	Conference guests' speech			
	12:30-01:00	Coffee Break			
	01:00- 02:30	COM#1 COM#2 COM#3 COM#4 COM#5	CIV#1 CIV#2 CIV#3 CIV#4	CIV#8 CIV#9 CIV#10 CIV#11 CIV#12	ARC#1 ARC#2 ARC#3 ARC#4 ARC#5 ARC6
03:00	Guest Lunch				
Sunday 29-9-2024	12:00- 01:30	COM#6 COM#7 COM#8 COM#9	CIV#5 CIV#6 CIV#7	CIV#13 CIV#14 CIV#15	ARC#7 ARC#8 ARC#9 ARC#10 ARC#11 ARC#12
	01:45	Coffee Break			
	02:00-03:00	Closing Ceremony			

Saturday 28-9-2024

Hall (1)

01:00-02:30

Chairman:
Prof. Dr. Ahmed Shaaban
Assoc. Prof. Abeer Tawakol
Dr. Waleed M. Gaballah
Prof. Dr. Ebrahim Badran
Assoc. Prof. Mohamed Saeed
Dr. Asmaa Elsaïd

Electronics Engineering

Hall Assistants:

Dr. Rana Nour

Eng. Khaled Elgamily

Eng. Nada Refaat

Eng. Hala Hamdy

Session	Title	Authors
COM#1	FTTH design planning in an Eco-Resort	Dr. Waleed Gaballah Eng. Hager Hesham Eng. Amira Mahmoud
COM#2	Analysis of Transients Voltages in Grounding Grids	Prof. Ebrahim Badran Prof. Ibrahim Mansy Eng. Basma Samy
COM#3	Green defends: Intelligent plant disease detection and agriculture support system	Dr. Waleed Gaballah Eng. Hager Hesham Eng. Amira Mahmoud Eng. Mohamed Gadia
COM#4	Integration of Federated learning and Blockchain	Eng. Mai Shawkat
COM#5	Evaporative Rate Released from Open Pool Reactor	Assoc. Prof. Talal Abu Almaaty

Saturday 28-9-2024

Hall (2)

01:00-02:30

Chairman:

Prof. Ahmed M. Tahwia

Assoc. Prof. Kamal Radwan

Assoc. Prof. Khaled Abu El-hassan

Assoc. Prof. Bassam Abdelsalam Abdelsalam

Civil Engineering

Hall Assistants:

Eng. Ayman A. Elmasry

Eng. Mohamed M. Elbaz

Eng. Aml Badr

Eng. Ahmed Adel

Eng. Mona Awadeen

Session	Title	Authors
CIV#1	A Review on Sustainable Concrete Using Agriculture Wastes as Cementitious Material	Prof. Ahmed M. Tahwia Prof. Mohamed Amin Dr. Sara F. Elbeltagy Eng. Nada Mohamed Amin

CIV#2	Utilization of Ferrosilicon slag, Sugarcane Bagasse Ash and Metakaolin as Cement Replacement for the Production of Sustainable Concrete – A Review	Prof. Mohamed Amin Prof. Ahmed M. Tahwia Assoc. Prof. Khaled Abu El-hassan Dr. Yara Elsakhawy Eng. Nirmen Abdelaziz Eng. Nada Mohamed Amin
CIV#3	Optimizing Concrete Performance with Micro-Phase Change Materials	Prof. Mohamed Amin Prof. Ashraf M. Heniegal Prof. Kassem Salah El-Alfy Dr. Nour Bassim Frahat
CIV#4	Sustainable Concrete How and Why?	Prof. Mohamed Amin Prof. Ahmed M. Tahwia Eng. Mona Awadeen Eng. Mohamed M. Elbaz

Saturday 28-9-2024

Hall (3)

01:00-02:30

Chairman:

Prof. Kassem El-Alfy Associate Prof. Ibrahim Saad Agwa
Dr. Shaaban Selim

Civil Engineering
Hall Assistants:

Eng. Mohamed O. Younis Eng. Ahmed Elmehalawy Eng. Ahmed Ali
Eng. Mohamed Elsabakhawy Eng. Maryam Hisham

Session	Title	Authors
CIV#8	Predicting the Compressive Strength of High Strength Concrete Using Machine Learning Algorithms: A Comparative Analysis of Regression Models	Prof. Mohamed Amin Dr. Shaaban Selim Dr. Mohammed Shaaban Dr. Islam M. Riad
CIV#9	Effects of porous recycled materials and super absorbent polymer on properties of sustainable self-curing concrete: a review	Prof. Mohamed Amin Prof. Ahmed M. Tahwia Eng. Mohamed O. Younis
CIV#10	Comparative Analysis of Structural Responses in Concrete Bridges under Thermal Loads using Frame and Shell Models	Dr. Shaban I. Selim Dr. Nabil Balat Dr. Mohamed I. Metwally
CIV#11	Behavior of concrete -filled cold-formed steel structures	Prof. Mohamed Amin Associate Prof. Fikry A. Salem Eng. Ayman. A. Elmasry

		Eng. Aml Badr
CIV#12	A Review on Production of Light weight Aggregates	Prof. Ahmed M. Tahwia Prof. Mohamed Amin Eng. Hager Elmahdy

Saturday 28-9-2024

Hall (4)

01:00-02:30

Chairman:

Associate Prof. Mohanad Fouda Associate Prof. Marwa Atef

Dr. Hala Raslan

Architecture Engineering

Hall Assistants:

Eng. Aya Elhendy.

Eng. Hamdy Elnaggar

Eng. Amira Ellawaty

Session	Title	Authors
ARC#1	Modifying the Street Lighting Design of New Cities to Enhance the Health and Wellness of Inhabitants	Dr. Hala M. Raslan
ARC#2	Green Walls as An Entry Point to Improve the Building's Thermal Efficiency Into Educational Buildings	Associate Prof. Marwa Atef Associate Prof. Mona Elwazir Eng. Rawan El Abassi
ARC#3	The Thermal Behavior for Building Materials Using Phase Change Material to Raise Energy Efficiency	Prof. Lamis El-Gizawi Assoc. Prof. Nanes EL-Sayad Dr. Rowan Mohamed Mansour
ARC#4	Disaster Risk Management from Political Events A Vision to Strengthen the Government Building Interface	Eng. Norhan Mohamed Youssif
ARC#5	Environmental Evaluation of the Alternative Housing Environments of Slums	Eng. Aya Abd El-maksoud Maan
ARC#6	Architecture ana Parametric Design	Eng. Aya Atef Eltaweel

Sunday 29-9-2024

Hall (1)

12:00-01:30

Chairman:

Prof. Dr. Ahmed Shaaban

Prof. Dr. Ebrahim Badran

Assoc. Prof. Abeer Tawakol

Assoc. Prof. Mohamed Saeed

Dr. Waleed M. Gaballah

Dr. Asmaa Elsaid

Electrical and Electronics Engineering**Hall Assistants:**

Dr. Rana Nour

Eng. Khaled Elgamily

Eng. Nada Refaat

Eng. Hala Hamdy

Session	Title	Authors
COM#6	Numerical Simulation of parallel RLC Model Using Different Fractional Derivative operators	Eng. Ahmed Nazih
COM#7	AI Solutions in Real World	Eng. Ali Hany
COM#8	Project Management: Agile Methodology	Eng. Hamdy Saeed
COM#9	How Semiconductors and Artificial Intelligence will Work Together in Future Applications	Eng. Ibrahim Yasser Elawady

Sunday 29-9-2024

Hall (2)

12:00-01:30

Chairman:

Prof. Ahmed M. Tahwia

Assoc. Prof. Kamal Radwan

Assoc. Prof. Khaled Abu El-hassan

Assoc. Prof. Bassam Abdelsalam

Abdelsalam

Engineering

Hall Assistants:

Eng. Ayman A. Elmasry

Eng. Mohamed M. Elbaz

Eng. Aml Badr

Eng. Ahmed Adel

Eng. Mona Awadeen

Session	Title	Authors
CIV#5	Effect of Fly Ash, Sugarcane Leaf Ash and Sugar Beet Waste Ash on Durability of Sustainable High Strength Concrete	Prof. Mohamed Amin Prof. Mohamed G. Mahdy Dr. Asmaa A. Mashaly
CIV#6	Effects of natural and synthetic fiber ropes as a partial replacement on the reinforced concrete beams	Prof. Mohamed Amin Assoc. Prof. Ibrahim Saad Agwa Assoc. Prof. Bassam Abdelsalam Eng. Marawan Ashraf Saad
CIV#7	Machine Learning for Accurate Construction Cost Estimation	Prof. Ibrahim Motawa Eng. Ahmed Adel

Sunday 29-9-2024

Hall (3)

12:00-01:30

Chairman:

Prof. Kassem El-Alfy Associate Prof. Ibrahim Saad Agwa

Dr. Shaaban Selim

Civil Engineering

Hall Assistants:

Eng. Mohamed O. Younis

Eng. Ahmed Elmehalawy

Eng. Ahmed Ali

Eng. Mohamed Elsabakhawy

Eng. Maryam Hisham

Session	Title	Authors
CIV#13	The impact of waste steel fibers and crumbed rubber on eco-friendly high-strength concrete	Prof. Mohamed Amin Dr. Ali.E. Elrefaie Eng. Mostafa M. Alsaadawi Eng. Mona Awadeen
CIV#14	Sustainable incorporation of recycled marble dust as partial replacement of cement in sustainable concrete: a review	Prof. Ashraf M. Heniegal Prof. Mohamed Amin Associate Prof. Ibrahim Saad Agwa Dr. Shaaban Selim
CIV#15	Retrieve and Evaluation of Integrated Water Vapor Utilizing Different Methods and Platforms over Egypt	Prof. Mostafa Rabah Prof. Ashraf El-Kutb Mousa Assoc. Prof. Mohamed Zahran Dr. Ahmed Saber Dr. Abdelrahman A. Yassien

Sunday 29-9-2024

Hall (4)

12:00-01:30

Chairman:

Associate Prof. Mohanad Fouda

Associate Prof. Marwa Atef

Dr. Hala Raslan

Architecture Engineering
Hall Assistants:

Eng. Aya Elhendy.

Eng. Hamdy Elnaggar

Eng. Amira Ellawaty

Session	Title	Authors
ARC#7	Limitations in Producing Innovative and Unique Architecture Due to a Lack of Understanding of the Diverse Philosophies of Architectural Styles and their Relationship to Methods of Form Generation	Dr. Amira Medhat gouda
ARC#8	Climate Change and Thermal Stress in Industrial Workspaces a Quantitative Study of Future Heat Exposure in a Wood Factory	Dr. Kareem Aldali

ARC#9	A Review of The Evolution of life Cycle Assessment: Insights into Past Developments and Future Directions	Dr. Aliaa Abbas
ARC#10	Assessment of Flooring Materials' Contribution to TVOC Emissions in Indoor Environments	Dr. Aliaa Abbas
ARC#11	The role of Biotechnologies in Enhancing Sustainable Architecture: Integration of Nature and Technology	Eng. Amira R. Ellawaty
ARC#12	Life Cycle Assessment of High-Performance Glazing Systems: A Comparative Study for Office Buildings in Desert Climate Zones	Eng. Basma Mokbel

A large, faded version of the STEC 2024 logo, centered on the page. The letters 'S', 'T', 'E', and 'C' are in a light blue color, and the year '2024' is in a light red color.