

National Seminar On **Automation, Robotics And 3d Printing In Construction** on 15th& 16th October 2018 was organised by Civil Engineering Department of Ajay Kumar Garg Engineering College (AKGEC), Ghaziabad, Uttar Pradesh in reverence to Dr.APJ Abdul Kalam on his birthday on 15th October 2018.

The seminar was inaugurated by lighting the lamp of knowledge.



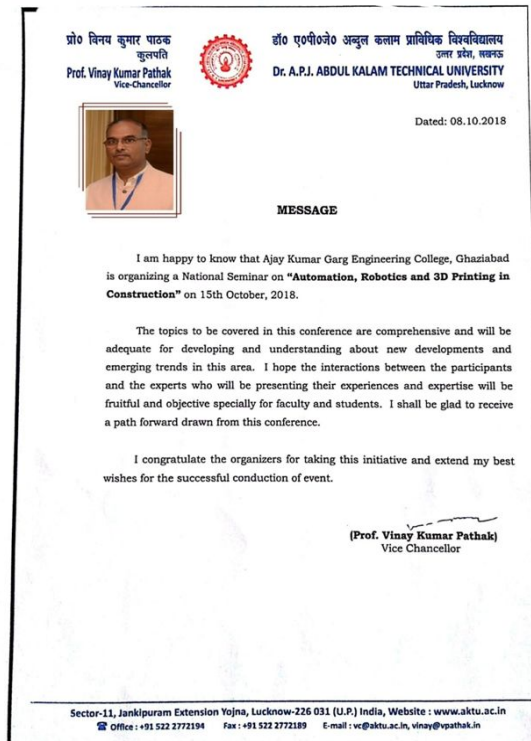
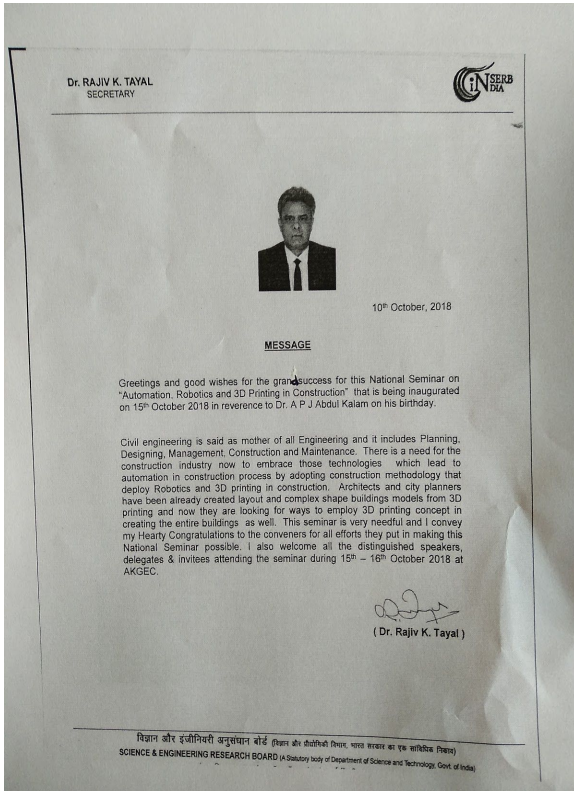
A formal welcome of chief guest Dr. P. R Swarup, Guest of Honor Mr. S. K. Varshney, Keynote Speaker Dr. S. J. VIJAY, with sapling was done by Prof. P K Chopra, Air Cmde P.Singh & Prof. S L Kapoor respectively.



Dr. R. K. Agarwal, Director AKGEC welcoming the Guests, delegates ,faculty delivered his welcome speech.



For Conduct of this National Seminar Messages and good wishes received from eminent persons that included Dr. Rajeev K. Tayal, Secretary, Science and Engineering Research Board (SERB) of DST, Govt. of India. and Prof. Vinay Kumar Pathak, Vice Chancellor, AKTU were read to all the delegates .



Guest of Honor, Mr. SANJEEV KUMAR VARSHNEY Head of International Cooperation, Bilateral, Department of Science & Technology, Govt. Of India, New Delhi, first shared his views on the theme of Seminar.



The Chief Guest Dr. P. R Swarup, the Director General of Construction Industry Development Council (CIDC), then gave his motivational speech to all students as how hard work help us in becoming good civil engineer. He shared his experience about the efforts he made for CIDC to function properly. He also emphasised on the usefulness of visiting Good construction sites, laboratories and working on site during student's graduation days.



The Seminar Technical volume proceedings CD were released by Chief Guest, Guest of Honor, Keynote speaker & Director AKGEC and the Convener.



Keynote Speaker has been MR. S J VIJAY Director of hoM Mission India Pvt Ltd ,Bengaluru, having expertise in Manufacturing & Assembling Building with 3D Monolithic Volumetric Recast. In addition to his an hr long Keynote speech he as well shared his work during Technical Session-1 after the Lunch.



As a token of gratitude and appreciation mementos to guest at the end of inaugural session were handed over by Dr. R. K. Agarwal, Director AKGEC.



To mark the successful conduct of the inaugural of the National Seminar, a vote of thanks was then given by a Dr.B.B.Prasad, Professor of Civil Engineering.

Afternoon technical session commenced with **Technical Session -1**

Speaker - S J Vijay, MRICS, Director at hoM Mission India P Ltd, Bengaluru, Karnataka, India

Topic-3D Monolithic Modular Recast continued his talk and floor was open for Q&A.



Levels of Construction Technology

Level 0	Level 1	Level 2	Level 3	Level 4
MATERIAL	COMPONENTS	ELEMENTAL OR PLANAR SYSTEMS	MODULAR VOLUMETRIC SYSTEM	COMPLETE BUILDING SYSTEMS
Basic materials for site-intensive construction	Manufactured components	Linear or 2D components	3D components in the form of modules	Modular components - fully finished and delivered to site
<ul style="list-style-type: none"> ✓ Involves more Labour ✓ Time consuming 	<ul style="list-style-type: none"> ✓ Fabricated in Factory ✓ Can't be build On-site ✓ Assist in construction speed & quality 	<ul style="list-style-type: none"> ✓ Series of Pre fabricated elements assembled to form the shell ✓ Requires on-site work 	<ul style="list-style-type: none"> ✓ Volumetric, forms a completed part of the building ✓ Involves more than one trade in the factory 	<ul style="list-style-type: none"> ✓ Finished interior & exterior surfaces ✓ Less on-site work

Source: Gibb, A.G.F., *Off-site Fabrication—Pre-Assembly, Pre-Fabrication, and Modularization*

Technical session -2

Speaker - Dr Manu Santhanam Professor, Building Technology and Construction Management Division of IIT Madras came on video conferencing as he couldn't make it to reach AKGEC this day .

Topic- Concrete 3D Printing



Technical session- 3

Speaker - Abhishek Gupta, CEO and Co-founder of MOVEL AI, Singapore

Topic-3D Use of Robotics and Automation in Design and Survey

He also came on video conferencing as he too couldn't make it to reach AKGEC.

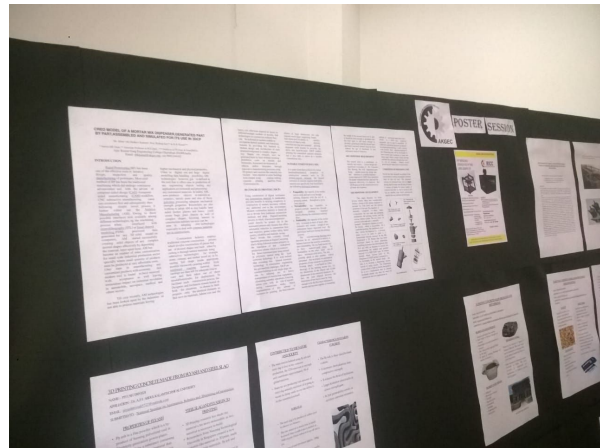
Robotics in Construction



MOVEL AI

POSTER SESSION

This was held in the College Exhibition Arcade.



DAY 2

A formal welcome was made to distinguished speaker Mr Sanjay K Gupta, Founder & Director of Global Axis, India, with a sapling.



TECHNICAL SESSION -4

Speaker - Mr Sanjay K Gupta, Founder & Director of Global axis, India.

Topic- 3D Core & Mold Printing. (The industry's pressure to innovate is creating constant growth for 3D core and mold production).



Demo Session of 3D Printer by Mr. Pradeep Jain, Associate Professor, Department of Mechanical Engineering, AKGEC.



At the end of the Seminar certificates were distributed to all the delegates and participants of the seminar and a closing speech was given by DR. K. KAMAL, DEAN (R&D) & -HOD(CIVIL) also the convener of this National Seminar.



The event came to end soon after Networking lunch.



A NATIONAL SEMINAR on AUTOMATION, ROBOTICS AND 3D PRINTING IN CONSTRUCTION LIST OF DELEGATES CATEGORY WISE.

LIST OF DELEGATES FROM ICI

S.NO	NAME OF DELEGATES	ORGANISATION
1	Mr. Gopal Yadav	ICI / CIDC
2	Ms. Garima Tyagi	ICI / CIDC
3	Mr. Bharath .B	ICI / JSSATEN
4	Mr. Deepanshu	ICI / IPEC
5	Mr. Chandra Bhushan	ICI / IPEC
6	Dr. C.L.Verma	ICI / Ex-CBRI
7	Dr. Visalakshi	ICI / Bennett University
8	Er. Shamshad Ahmad	ICI
9	Er. Ehtesham Ahmad	ICI / Oculus project PVT LTD
10	Er. Razi Anwar	ICI / Oculus project PVT LTD
11	Prof. S.K.Sharma	ICI / ABESEC, Ghaziabad
12	Mr. Anil K Sharma	ICI

LIST OF DELEGATES FROM CRRI

S.NO	NAME OF DELEGATE	DESIGNATION
1	Dr. VVL K Rao,	Sr. Principal Scientist
2	Er. G K Sahu	Sr. Principal Scientist
3	Dr. Naveet Kaur	Scientist
4	G. Durga Prasad	Scientist
5	Ms. Lincy Varghese	Student
6	Kumar Shashi Bhushan	Technical Officer

LIST OF DELEGATES FROM INSTITUTION

S.NO	NAME OF DELEGATES	ORGANISATION
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1	Ms. Sakshi Gupta	Amity University, Haryana
2	Ms. Abhilasha	IIT, Delhi
3	Mr. Manjunath. B. N	JSS Noida UP
4	Mr. Nitesh Bhardwaj	KIET Ghaziabad
5	Ms. Sarika Awasthi	KIET Ghaziabad
6	Mr. Abhinav Dengri	ABES EC Ghaziabad
7	Dr. B. K. Singh	ABES EC Ghaziabad
8	Ms. Pallavi Sirohi	IPEC, Ghaziabad
9	Mr. Madhur Singh	KCGI Punjab
10	Mr. Anand Kumar Singh	Sanskar College of Engg. & Technology
11	Mr. Abhishek Srivastava	JSSATEN
12	Mr. Anand Kumar	Global Axis
13	Mr. Anshu Shukla	AKGEC

FROM AKGEC

S.NO	NAME OF DELEGATES	DESIGNATION
1	Dr. B.B .Prasad	Professor
2	Dr. R.K. Srivastava	Professor
3	Mr. Jay Varshney	Assistant Professor
4	Mr. Prashant Agarwal	Assistant Professor
5	Mr. Himanshu Panwar	Assistant Professor
6	Mr. Pulkit Tewari	Assistant Professor
7	Mr. Suraj Kumar	Assistant Professor
8	Mr. Priyank Srivastava	Assistant Professor
9	Ms. Monika Tewari	Assistant Professor
10	Ms. Nikita Jaiswal	Assistant Professor

11	Ms. Anchal Negi	Assistant Professor
12	Mrs. Shikha Mittal	Assistant Professor
13	Mrs. Kshama Shukla	Assistant Professor
14	Ms. ANubha Gupta	Assistant Professor
15	Mrs. Archita Goyal	Assistant Professor
16	Mr. Ashish Vishwakarma	Assistant Professor
17	Mr. Pramod Yadav	Lab Assistant
18	Mr. Sachin Kumar	Lab Assistant
19	Mr. Prashant	Lab Assistant

POSTER SESSION PARTICIPANTS

S.No	Name of participant	Topic
1	Dr. K. Kamal	
2	Prof. Pradeep Jain	Creo Model of a mortar mix dispenser, generated part by part, assembled and simulated for its use in 3DCP
3	Ms. Medhavi KAmran	
4	Ms. Afsha	
5	Dr. Kamal	Development of corrugated sandwich profile panels in a designed mix from the 3d concrete mix printer
6	Mr. Prashant Agarwal	
7	Mrs. Kshama Shukla	
8	Nabeel	3D printing concrete made from ceramics
9	Pulkit Saxena	3D printing concrete made from putty and Dr. fixit
10	Piyush Trivedi	3D 3D printing concrete made from flyash and steel slag
11	Shantun Kumar	3D 3D printing concrete made from sand and bituminous
12	Rituparan Mishra	3D 3D printing concrete made from over burnt bricks
13	Siddharth Shankar	3D 3D printing composite material made from epoxy resin and sawdust.

**A NATIONAL SEMINAR on AUTOMATION, ROBOTICS AND 3D PRINTING IN
CONSTRUCTION-PATRONS,CONVENOR,ORGANIZING COMMITTEE
,COORDINATORS,SUBCOMMITTEE .**

PATRONS



*Dr. Vinay Kumar
Pathak
(VC, AKTU)*



*Dr. R. E. Agarwal
(Director, AKGEC,
Ghaziabad)*

CONVENOR



*Dr. E. Kamal, Dean
(R&D) Professor & HoD
(Civil) AKGEC*

ORGANIZING COMMITTEE



*Prof. I.P. Sharma
ME, AKGEC*



*Dr. B.B. Prasad
Professor, CE,
AKGEC*



*Dr. Rakesh
Shrivastava
Professor, CE,
AKGEC*

COORDINATORS



*Ms. Anchal Negi
Assistant Professor CE,
AKGEC*



*Mrs. Shikha Mittal
Assistant Professor CE,
AKGEC*

Subcommittee- Civil Department



*Dr. K. Kamal
(Publicity)*



*Dr. B. B. Prasad
(Technical Affairs)*



*Dr. A. K. Srivastava
(Food Committee)*



*Shikha Mittal
(Publicity & Registration)*



*Anchal Negi
(Publicity & Registration)*



*Suraj Kumar
(Publicity & Food Committee)*



*Monika Tewari
(Registration)*



*Priyank Srivastava
(Food Committee)*



*Anubha Gupta
(Registration & Anchoring)*



*Himanshu Panwar
(Sponsorship & Anchoring)*



*Jai Varshney
(Poster Session)*



*Nikita Jaiswal
(Stage Management)*



*Kanchita Shukla
(Stage Management)*



*Archita Goyal
(Poster Session & Technical
Affairs)*



*Pulkit Tiwari
(Guest Hospitality)*



*Prashant Aggarwal
(Sponsorship & Guest Hospitality)*



*Anirvan Rai
(Transportation)*



*Ashish Vishwakarma
(Transportation)*

