

## **3D GRAPHY ENGINEERING WORKSHOP 2022**

## 3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY

**3D GRAPHY** is a platform for 3D Technology Training, Skill development, Education, Research, Technology consultancy and Service for Students and Professional across different Sectors. The sectors we are promoting the 3D technology is in Aerospace, Defence, Space Technology, Drones, Robots, Automotive, Marine, Shipbuilding, Oil & Gas, Dental, Medical and others. 3D Technology includes 3D Printing, 3D Imaging, 3D Scanning, 3D Design, 3D Software, 3D Simulation and 3D Visualisation .i.e. AR & VR is revolutionising all the Major Sectors. 3D GRAPHY WORKSHOP is a series of events conducted on various industries and sectors. The current event held on 9<sup>th</sup> April 2022 is on the topic, 3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY 2022 which will address the Tool Manufacturing companies, OEM's, 3D Design, companies about 3D Printing and 3D Visualisation technologies. It is our 41<sup>st</sup> event and is a Virtual event Organised by TRINITY MEDIA & MARKETING SOLUTIONS. The company is promoting 3D Technology from India conducting Events for last 7 years. And due to pandemic all our events will be conducted through Virtual Conference & Exhibition to ensure knowledge, network and business continues with a real time experience close to an actual physical exhibition through our platform.

ORGANISER

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Message from Dr.S Chandrasekar, Director, Roots Group of Companies, Coimbatore, India

Dear Industry Respondents,

First of all I would like to thank my friend Dr.Shibu John, Founder - 3D Printing World | 3D Graphy | AI World and a Host of other organizations, related to Additive Manufacturing, to have invited me to attend this august event.

My heartfelt greetings to Dr. Shibu John, organizer of this event, Dr. Nagahanumaiah, Director - Central Manufacturing Technology Institute, Bengaluru, the key note speaker for the day and every distinguished Resource Person for today's events. I wish to humbly convey my gratitude to Dr. Shibu Join to have chosen to bestow me as the Guest of Honor.

Additive manufacturing (AM), also known as 3D printing, is a transformative approach to industrial production that enables the creation of lighter, stronger parts and systems.

It is yet, another technological advancement made possible by the transition from analogy to digital processes.

In recent decades, communications, imaging, architecture and engineering have all undergone their own digital revolutions. Now, AM can bring digital flexibility and efficiency to manufacturing operations. AM uses data (CAD) software or 3D object scanners to direct hardware to deposit material, layer upon layer, in precise geometric shapes.

As its name implies, AM adds material to create an object. By contrast, when you create an object by traditional means, it is often necessary to remove material through milling, machining, carving, shaping or other means. Although the terms "3D printing" and "rapid prototyping" are casually used to discuss additive manufacturing, each process is actually a subset of additive manufacturing.

While additive manufacturing seems new to many, it has actually been around for several decades. In the right applications, additive manufacturing delivers a perfect trifecta of improved performance, complex geometries and simplified fabrication. As a result, opportunities abound for those who actively embrace additive manufacturing.

With the release of the Strategy by Ministry of Electronics & Information Technology, Innovation and R&D ecosystem will be encouraged in PPP mode to transform existing research knowledgebase to develop Additive Manufacturing grade materials, 3D printer machines and printed indigenous products for vast domestic and international market in various sectors including electronics, photonics, medical device, agro and food processing etc.

With this scenario in the background, there could not have been a better time to conduct this exclusive event titled 3D Graphy Engineering workshop 2022 - 3D Printing and 3D Visualization for Tooling Industry.

Wish all the specialists and resource persons and all the participants who are virtually attending this programme a great session and lots of takeaways at the end of the day.

Dr. S Chandrasekar, Director, Strategic Sourcing & Plant Engineering, Roots Group of Companies Coimbatore, Tamil Nadu, India,



Message from Dr. Shibu John, Founder, Trinity Media / Founder & MD, 3D GRAPHY LLP

Dear Respondents,

It gives me immense pleasure to share the potential of a Game Changing technology called 3D Printing. This is indeed a unique technology, which is benefiting almost all sectors. And since we are operating in a digital world a technology like this can only help change the dynamics of manufacturing to benefit all the end users. Automotive Sector is also benefiting a lot from this technology. 3D Printing is also called Additive manufacturing, Rapid Prototyping and **DIGITAL MANUFACTURING**.

How does this operate? In 3D printing, the first step is to make a virtual design of the desired object, and subsequently the virtual design is made in a CAD file by using a 3D scanner or by using a 3D modelling program with software. The next step is to get the 3D file to print it; the 3D modelling software in the 3D printer will "slice" the design into numerous layers, and uses the material to create the object layer by layer. It is a process of making 3D objects using plastic, metal, ceramic, wood, gold powder and composite materials, usually layer upon layer, to build physical models, prototypes, patterns, tooling components, and production parts. There is a great deal of R & D going into the various materials to ensure it can be used for various requirements. It is estimated that the global 3D printer market will grow at a **CAGR of 29.5%** during the period 2021-2026. This is inspite of pandemic.

**3D GRAPHY** is a platform for 3D Technology Training, Education, Research & Service for Students, Professionals and Technology experts. It has 3 divisions focussing on each specialisation and sectors – **3D GRAPHY DENTAL & MEDICAL**, **3D GRAPHY ENGINEERING** & **3D GRAPHY KIDS & SCHOOL. More details you can please find in our website** <u>WWW.3DGRAPHY.IN</u>

And the current event is conducted under **3D GRAPHY ENGINEERING**. Here is website link with details <u>https://engineering.3dgraphy.in/</u>

We have conducted 40 events in the last 7 years and this would be our 41<sup>st</sup> event the **3D GRAPHY ENGINEERING WORKSHOP** – **3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY** to be held on **9**<sup>th</sup> **April 2022**. It is a day workshop with speakers and delegates participating from 3D Printing, 3D Visualisation expertise and end users from Tool Manufacturing companies, OEM's, Engineering Colleges with Students and Faculties joining to learn the potential of 3D Printing and its benefits. We will also have different 3D Printer machines, 3D Imaging Cos, 3D Software, 3D Design, 3D simulation and material companies share knowledge with the latest updates and projects.

We are happy to invite all the end users from different specialisation from Tooling industry for a good knowledge, networking and business opportunity. Here is the conference page with details of the event the virtual event for an experience <u>https://engineering.3dgraphy.in/workshop.html</u>

Due to pandemic even this event we are conducting virtually. But am sure it would have the same opportunities as the virtual event platform is very close to a physical event as we have dedicated meeting rooms, VIP Lounge, Lobby, experience centre and virtual exhibition booths for good interaction.

We welcome you all for the event.

Thanking You,

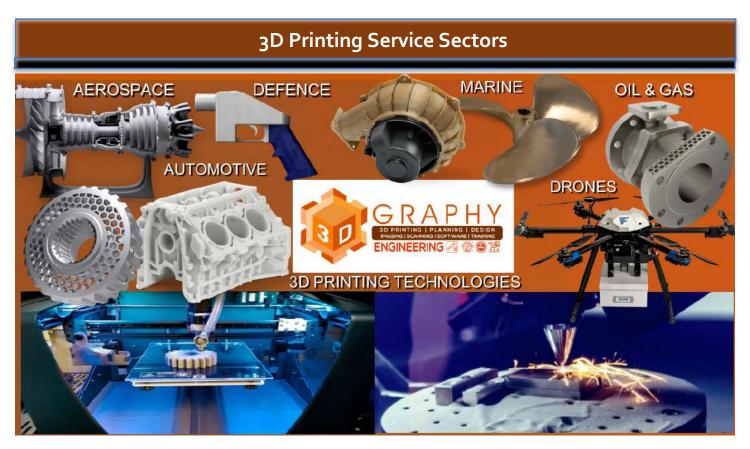
Dr. Shibu John Founder, Trinity Media & Marketing Solutions Founder & Managing Director, 3D GRAPHY LLP. Secretary General & Founder, 3D Printing Education & Research Association Managing Editor, 3D GRAPHY NEWS

## Inauguration of 3D GRAPHY & 3DPERA Shri. Subhash Desai, Honorable Minister for Industries, Govt. of Maharashtra, India



**Trinity Media & Marketing Solutions (TMMS)** is conducting **3D GRAPHY ENGINEERING WORKSHOP 2022 – 3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY** event to be held on **9<sup>th</sup> April 2022.** We will have lectures, panel discussion & Q & A to be conducted by professionals, scientists and researchers from 3D Printing, Tool Manufacturing Companies, OEM's, material scientist who are experts in each specialization. We will also have 3D printing hardware, 3D Imaging, 3D Software, 3D Design, 3D Simulation, 3D Visualisation and Material companies also sharing the insights about the technology.

Due to the pandemic all our events for the past 2 year where conducted through Virtual Conferences and Exhibition for students and professionals to get the same opportunity for learning through our platform sitting at home or offices to have a live experience through their laptops. This will be a real time experience like an actual physical event since it is a license event software which is interactive. The intent is to have an active participation of students and professionals for Knowledge, Networking and Business. We have meeting rooms for students and professionals to interact directly with the speakers and others in VIP lounge and exhibition booths. The main title of the event is "**3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY 2022** 



# PRELUDE OF THE EVENT

**3D GRAPHY ENGINEERING WORKSHOP 2022 – 3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY** will address all the 3D Printing innovative solutions in Tooling to meet the requirements.

#### **SYNOPSIS**:

#### Key benefits of AM for tooling include:

The speed of production of Additively Manufactured parts is usually much faster than production of the same part in traditional methods, even up to 90 percent. One of the key reasons for this is that tooling production via traditional manufacturing involves many lengthy processing steps, which can sometimes take even weeks, while Additive Manufacturing demands less machining steps and something does not require machining at all. AM's benefit of speed also makes it ideal for producing numerous iterations and making changes in the design of the part, enabling to facilitate flexibility and innovation. The increase in productivity leads to dramatic reduction of production cycle times.

#### **Cost reduction**

The ability to perform quick turnarounds in design allows major costs savings, especially at low production volumes. Reducing the associated costs makes it possible for companies to modify and update their tooling more frequently and helps companies to meet the demands of product design cycles. Additive Manufacturing also reduces the material scrap rate, allowing manufacturers to save costs on material. Additionally, the automated process improves product yield, and eliminates human error throughout the assembly and reduces labor inputs, comparing to traditional manufacturing methods.

#### Improvements in functionality and quality

Additive Manufacturing enables the production of more complex designs that would be difficult or impossible to produce with traditional manufacturing. It enables more frequent changes and replacements so it improves the components' designs and functionality. Production via Additive Manufacturing can even yield higher quality tools with longer part life, due to more homogeneous heat transfers which provides better cooling characteristics, and less tool deformation. Higher quality parts decrease the rejection rate and also lowers the unit costs. AM creates opportunities for Part Consolidation, which can optimize the functionality of the tool and eliminate the need for assembly.

#### **Better ergonomics**

3D printing tools, jigs and fixtures allows manufacturers to produce the customized design that is adjusted exactly to the part's performance, and to improve the aids' safety and ergonomics. Tools fabricated with Additive Manufacturing are lightweight and can be tailor made for the specific application and even to the specific user (which is especially useful for medical devices).

#### To summarize,

As 3D printing technologies continue to develop and improve, the use of AM for tooling continues to increase. Additive Manufacturing for tooling increases companies' ability to innovate, customize their products and quickly reiterate for faster product development cycles, and it is likely to impact supply chains and products even more in the future.

AM for tooling provides great opportunities for lead time and cost reduction, particularly in cases of low volume-high complex parts, when redesigning can improve the component's functionality, and in cases with significant potential of weight reduction. Companies who aim to optimize their supply chain and increase the productivity of their manufacturing processes should identify these opportunities and use the advantages of Additive Manufacturing for tooling.

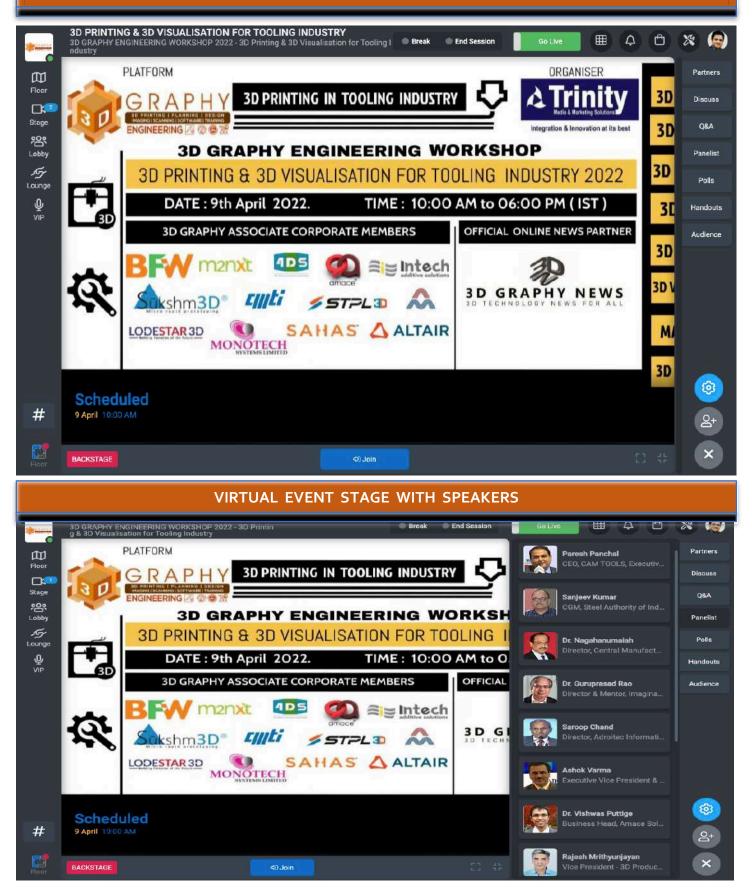
**3D GRAPHY is a platform designed by Trinity Media & Marketing Solutions (TMMS)**. It is a platform for training, education, research and events. We are conducting our 41<sup>st</sup> event the **3D GRAPHY ENGINEERING WORKSHOP 2022** – **3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY** to be held on **9<sup>th</sup> April 2022 from 10:00 AM to 06:00 PM**. We will have lectures, panel discussion & Q & A to be conducted by professionals, scientists and researchers from 3D Printing ,Tool Manufacturing Companies, OEM's, material scientist who are experts in each specialization. The platform will be a great knowledge, networking and business opportunity for companies and institutions to be updated of the growth potential of this technology for times to come.

### RECEPTION DESK LOBBY CONFERENCE HALL PARALLEL TRACK HALL MEETING ROOMS EXHIBITION BOOTH | SPONSORS BACKDROP SPONSORS LOGO SCROLL VIP LOUNGE HANDOUT AREA POLLING CENTRE | Q & A SESSION

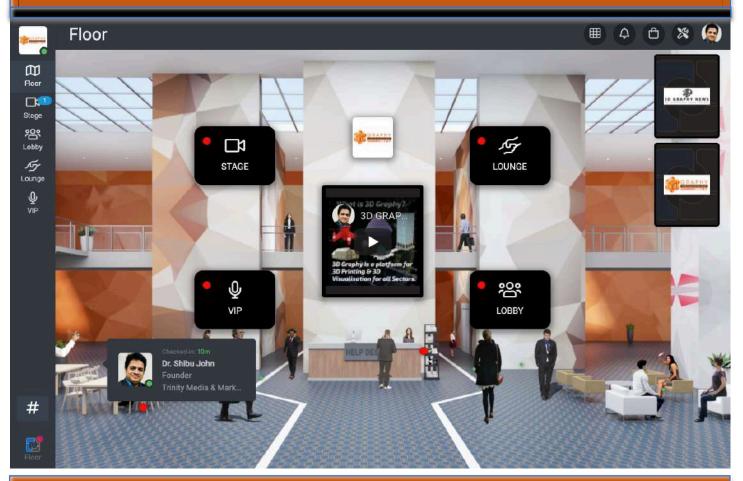




## VIRTUAL EVENT STAGE - BACKDROP



### VIRTUAL EVENT - FRONT DESK



## SPEAKER PRESENTATION & PANEL DISCUSSION

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# ORGANISER

# **GUEST SPEAKERS**









Dr. Shibu John, Founder, Trinity Media & Marketing Solutions Founder & Managing Director, 3D GRAPHY LLP Secretary General & Founder, 3DPERA Managing Editor, 3D Graphy News Mumbai, India

Dr. S Chandrasekar, Director, Strategic Sourcing & Plant Engineering, Roots Group of Companies, Coimbatore, India Governing Council Member & Co- Chairman, Global Business Development, Coimbatore Chamber of Commerce & Industry

Paresh Panchal, CEO, CAM TOOLS, EC Member, Tool and Gauge Manufacturers Association, Mumbai, India Sanjeev Kumar, Chief General Manager, Steel Authority of India, Burnpur, West Bengal, India



# **3D GRAPHY ASSOCIATE CORPORATE MEMBERS**

















# **SPEAKERS**











Dr.Nagahanumaiah Director, Central Manufacturing Technology Institute, Bengaluru India Jagannath V, Whole Time Director & Business Head, M2NXT, A Subsidary of BFW, Bengaluru,India

Dr. Guruprasad Rao, Director, School of Design , MIT World Peace University, Pune, India Ex Director, Imaginarium Mumbai, India

Saroop Chand, Director, Adroitec Information Systems (P) Ltd , Delhi, India

Dr. Vishwas Puttige, Business Head, Amace Solutions Pvt, Bengaluru India



# **SPEAKERS**



Rajesh Mrithyunjayan, Vice President - 3D Product & Solutions, Monotech Systems Ltd, Chennai, India Sohrab Kothari, Co- Founder & CEO, Sahas Softech, Mumbai, India

Ashwin Deshpande, Country Head, Intech Additive Solutions, Bengaluru, India **Sushil Mane,** Technical Director, Altair India Kuntesh Radadiya Business Head, STPL 3D, Surat, Gujarat

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10.00 am (IST)	Registration
10:00 am - 10:10 am (IST)	Welcome Address by <b>Dr. Shibu John,</b> Founder, TRINITY MEDIA, Managing Director, 3D GRAPHY LLP, Secretary General & Founder, 3DPERA – Announcing the event –3D GRAPHY ENGINEERING WORKSHOP 2022 – 3D PRINTING & 3D VISUALISATION FOR TOOLING INDUSTRY
10:10 am - 10:15 am (IST)	Welcoming the PATRON & 3D GRAPHY ADVISORY MEMBERS
10:15 am - 10:20 am (IST)	Welcoming our GUEST SPEAKERS Mr. Sanjeev Kumar, CGM, Steel Authority of India, Burnpur, West Bengal, India Dr. S. Chandrasekar, Director, Strategic Sourcing & Plant Engineering, Roots Group of Companies Mr. Paresh Panchal, CEO, CAM TOOLS, EC Member TAGMA.
10:25 am -10:30 am (IST)	Introducing the 3D GRAPHY CORPORATE ASSOCIATE MEMBERS
10.30 am - 10:40 am (IST)	Announcing & Launch of <b>3D GRAPHY NEWS</b> – "3D Technology News For All" - Online News platform & Launch of <b>3D GRAPHY SHOP MART</b>
Session 1	"3D TECHNOLOGY A GAME CHANGER FOR TOOLING INDUSTRY".
10:45 am - 11:15 am (IST)	KEYNOTE SPEAKER : Dr. Nagahanumaiah, Director, Central Manufacturing Technology Institute, Bengaluru, India
11:20 am – 11:45 am (IST)	Jagannath V, Whole Time Director & Business Head, M2NXT, A Subsidiary of BFW, Bengaluru, India
12:10 pm - 12:30 pm (IST)	TBD
12:35 pm - 12:55 pm (IST)	TBD
01:00 pm - 01.30 pm (IST)	Lunch & Networking
Session 2	<b>3D PRINTING &amp; 3D VISUALISATION TECHNOLOGY INNOVATIONS FOR TOOLING</b> – 3D printer Hardware Machine, 3D Scanners, 3D Software, 3D Imaging Visualisation & 3D Design & Materials.
01:30 pm - 01:50 pm (IST)	Dr. Guruprasad Rao, Director, School of Design. MIT World Peace University, Pune India
01:55 pm - 02:15 pm (IST)	Saroop Chand, Director, Adroitec Information Systems (P) Ltd , Delhi, India
02:20 pm - 02:40 pm (IST)	Dr. Vishwas Puttige, Business Head, Amace Solutions Pvt, Bengaluru, India
02:45 pm - 03:05 pm (IST)	Sohrab Kothari, Co-Founder & CEO, Sahas Softech, Mumbai, India
03:10 pm - 03:30 pm (IST)	Rajesh Mrithyunjayan - Vice president, 3D Product & Solutions, Monotech Systems Ltd
03:35 pm - 03:55 pm (IST)	Ashwin Deshpande, Country Head, Intech Additive Solutions, Bengaluru, India
04:00 pm - 04:20 pm (IST)	Sushil S Mane, Technical Director, Altair India
04:25 pm - 04:45 pm (IST)	Kuntesh Radadiya, Business Head, STPL 3D, Gujarat, India
04:50 pm - 05:10 pm (IST)	TBD
05:15 pm - 06:00 pm (IST)	<ul> <li>PANEL DISCUSSION : "3D TECHNOLOGY A GAME CHANGER FOR TOOLING INDUSTRY".</li> <li>Mr. Paresh Panchal, CEO, CAM TOOLS, EC Member TAGMA – MODERATOR Dr. Nagahanumaiah, Director, Central Manufacturing Technology Institute, Bengaluru, India Dr. Guruprasad Rao, Director, School of Design, MIT World Peace University, Pune, India Mr. Saroop Chand, Director, Adroitec Information Systems (P) Ltd , Delhi, India Dr. Vishwas Puttige, Business Head , Amace Solutions Pvt, Bengaluru, India Mr. Sohrab Kothari, Co-Founder &amp; CEO, Sahas Softech, Mumbai, India Mr. Rajesh Mrithyunjayan, - Vice president, 3D Product &amp; Solutions, Monotech Systems Ltd Dr. Shibu John, Founder, Trinity Media, Managing Director, 3D GRAPHY LLP, Managing Editor, 3D GRAPHY NEWS</li> </ul>
06:00 pm – 6.05 pm ( IST)	Closing of the event

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**3D GRAPHY ASSOCIATE CORPORATE MEMBERS** 



# **DELEGATE REGISTRATION**

Category	Registration fee
Students – Engineering College, Research Institutes, Design Schools and others	Rs. 750
Professionals – Tooling Experts, Mechanical Engineers, 3D Designer, OEM's, Material scientist and others	Rs. 1500
<b>3D Printing Services Provider</b> - (3D Printer Machine- Hardware, Software, 3D Scanners, Material cos, 3D Printing Service Bureau and others	Rs. 2800
International Delegate	USD 75

### ACCOUNT DETAILS

Bank Name	State Bank of India
Beneficiary	Trinity Media & Marketing Solutions
Account No.	33911180450
IFSC/ NEFT/ RTGS	SBIN0011670
MICR No.	400002184
Bank Address	Suyogi CHS Ltd, Shop no. 1 – 5, Bldge no. 31, Tilaknagar, Chembur, Mumbai 400089, Maharashtra
GST No.	27AFUPJ9046C1Z4

Below is the payment link - For Domestic delegate Payments ( By Instamojo)

https://www.instamojo.com/@shibujohn

Below is the payment link - For International delegate Payments ( By PAYPAL )

https://paypal.me/ShibuJohnTrinity?locale.x=en\_GB

DELEGATE REGISTRATION FORM

Please visit the website link below to find the delegate form and fill your details to register

https://engineering.3dgraphy.in/workshop.html

DEMO LINK OF THE VIRTUAL EVENT PLATFORM (Past event link to experience the platform)

https://aoge.floor.bz/cast/556519