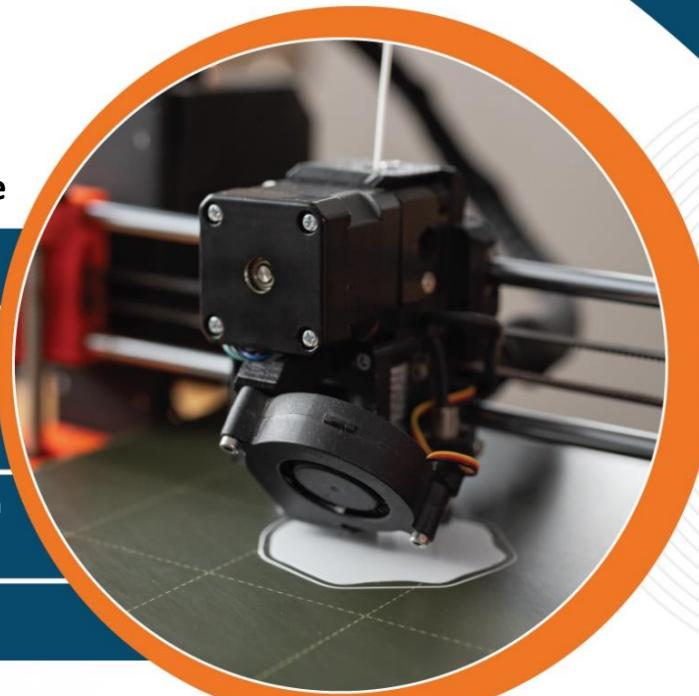## PM- DEVINE- Digital Design and 3D Printing Centre of Excellence te Electronic Manufacturing Cluster (EMC) laga under te project toh fund huishe dusra Government Agencies khan logote milikena.

4.0 & 3D Printing Industry laga kotha

Industry 4.0 toh manu khan laga aha jaa, kaam kura aro manu logote milikena thaka laga style toh badli kuri dibo eneka ekta technology toh 3D printing ase (ami khan itu technology ke additive manufacturing para b jane) itu technology toh juldi prototyping kuribole madad kure/ complex shape aro size laga digital design kuribole madad kure aro customised products banabole b madad kure (etu khan toh traditional methods khan para kuriwole napare).

Itu upai khan k ami khan bishi jagah te chulabole pariwo jineka healthcare, disability treatment, oil & gas, fashion & accessories Design, Drone and Aerospace industries nishina aro b bishi jagah khan te pariwo.

3D Printing laga workshop te itu khan hikawole ase

3D Printing Technology chinai dibo

NER karne SDG 2030 Gaps toh ki karone jaruri ase , itu janai dibo

Society ke kineka madad kuriwole paribo, itu b janai dibo

NER te infra banai thaka toh/ alag alag stakeholders ke itu project para labh uthabole bishi activities khan plan kuri kena ase.

Business kura manu khan kineka 3D Printing chulai kina labh uthabole paribo. Itu b janai dibo

Registration kuribole, please ami khan laga website visit kuribi

www.3dpcoe.in

3D Printing Technology laga overview

3D CAD Model

. STL file

Layer Slice & Tool Path

3D Printer

3D Object

Common 3D Printing Technology

S. NO.	3D Printing Technology	DESCRIPTION (TECHNOLOGY LAGA MATLAB/ KAAM)
1	Fused Deposition Modelling (FDM)	FDM printers toh melted plastic laga filament ke layer by layer ulai kena saaman khan banai.
2	Stereolithography (SLA)	SLA liquid resin ke layer by layer bhal kuribole UV rays laga madad loi, ekdum thik thak aro mihin para models banabole madad kuribo.
3	Digital Light Process (DLP)	SLA nishina hi DLP b resin k bhal kure huilebi Digital Projector use kurikena aro Engineering Application karone b DLP use kuribole paribo.
4	Polyjet	Polyjet printer para photopolymer resin k jet layer kuribole pare, multi-material aro multi-color printing chulai kena.
5	Selective Laser Sintering (SLS)	SLS toh laser laga madad para powdered materials k juribole pare. Example: Amputation cases khan te high strength socket juribole.
6	Electron Beam Melting (EBM)	EBM toh saaman khan banabole ekta 3D process ase kute electrons laga high-energy beam use kure powdered metal melt kuribole.
7	Direct Metal Laser Sintering (DMLS)	DMP/DMLS toh high quality aro complex metal parts banabole madad kure 3D CAD data ke metalpowder para sintering kurikena (high temperature te)
8	Binder Jetting	Powder laga layers ke selectively ekilogote join kure liquid binder use kurikena

Registration kuribole, please ami khan laga website visit kuribi **www.3dpcoe.in**

Kunuba jagah te chulabole laga plan:

1	Disability/Rehab/Heal in India	- Prosthesis – amputation laga sockets karone - Orthosis – Spine correction laga braces karone - Cranial Helmets – Baccha khan karone aro accidents laga cases karone - Hand Splints – Baccha khan laga Arthritis/ Post- Stroke (stroke huwa laga pichete) management.
2	Medical Education/Healthcare	- Dental Application (daat karone chulabole paribo) - Surgery kura laga aagete (pre-surgery) modelling & planning kuribole. - Cancer te Brachytherapy karone aro facial reconstruction surgeries (face laga structure k aro banawole laga surgeries) khan kuribole. - CME Classes – Digital Content Creation Teaching aro Doctors khan ke training dibole.
3	Industrial	- Oil & Gas ecosystem of NER - Drones - MSME use cases- tools laga Rapid prototyping aro farm equipment karone.
4	Consumer Goods	- Fashion accessories, buttons, nail art, fabric printing, jewellery aro bi eneke bishi areas te use kuribole paribo. - Shoe design prototypes karone b use kuribole paribo.

AMTRON