

A portrait of Leonardo da Vinci, showing his characteristic long, wavy beard and a dark cap. The background is a textured, dark brown color.

Apogee Innovation
Challenge-Problem statement
daVinci Creations

Natural fibre coating on metal substrate



Possible natural fibre sources:

1. Wood scrap
2. Straw fibre
3. Tree bark (Neem, mango, balsa etc.)

Constraint: Source of natural fibre should not involve cutting/felling of tree/plants/natural vegetation

Metal substrate: Mild steel, stainless steel, Structural steel, Aluminium etc.

Natural fibre coating: Methods



Possible methods:

1. Slurry coating
2. Spray coating
3. Gel casting

Any of the 3 methods can be utilized. Participants are encouraged to use any other possible method which they can think of. However, the coating method should be eco-friendly, scalable and affordable.

Specific clarification if required by participant will be appropriately answered.

Functional requirements



The natural fibre coating should meet following functional requirements:

1. Scratch resistant: Good adhesion strength
2. Thermal stability: Should not decompose/burn at high temperatures
3. Smooth appearance
4. Easy to apply/coat any metal substrate (steel, Aluminium etc.)
5. Water resistant/repellent
6. Eco-friendly and easily available raw materials

Take away for participant

1. All teams will be mentored during solution development
2. Every team will get a certificate from daVinci Creations
3. Top 5 teams will get opportunity to get paid internships
4. Top 8 teams will get goodies from da Vinci Creations
5. Work of all the participants will get highlighted on [da Vinci Creations website](#)
6. Promising candidates will be referred for full time position at da Vinci creations



So hurry up..

We look forward to your solutions