

Annexure

11th NATIONAL PETROCHEMICALS AWARDS

CATEGORY DETAILS

- **Innovation in Polymeric Materials.**
 - - New Polymers, Blends & Alloys, filled materials, fibers, Polymer Composites and Nano-Composites, Smart Materials etc.
 - New Additives, Compounds for newer & special applications in defence & space.
 - Non-conventional application/replacement of conventional materials (e.g. Metal & Ceramics etc.).
 - Materials for Additive Manufacturing Technologies
- **Innovation in Polymeric Products.**
 - New / creative product design.
 - Non-conventional application / Replacement of conventional materials (eg. Metals, Ceramics etc).
 - Modification of product design for performance improvements.
 - Application in defence & space.
 - Enhancement in the working environment, life cycle, energy efficiency, recyclability etc.
- **Innovation of Polymer Processing Machinery, Equipment, Robotics & Automation.**
 - Development of innovative/eco-friendly processing techniques.
 - Modification of machinery for higher Efficiency / Productivity / Automation.
 - Energy conservation, product quality improvement.
 - Improvement & design of moulds, dies and auxiliary equipments.
 - Development and Application of Robotics & Automation in different polymer processing techniques. Development in material movement system
 - Improvement in moulding & post-moulding operations.
 - Development of low cost, energy efficient, polymer testing equipments.
 - Modification of Single Use Plastics (SUP) Machinery for alternative use.
- **Innovation in Polymer Waste Management**
 - Newer technology in plastic waste utilization into products/energy recovery.
 - Recycling Technology.
 - Plastic waste collection, segregation techniques.
 - Product design for improved recyclability.
- **Innovation in Green Polymeric Materials & Products**
 - - Biopolymers.
 - Biodegradable / compostable Polymers.
 - Time controlled degradation.
 - Green material filled polymers.
 - Biodegradability evaluation techniques.
- **Innovation in Packaging Techniques including Creative Design**
 - Emerging Packing Technologies
 - Smart Packaging.
 - New compound for replacement of multi-layered packages.
 - Packaging for defence.
 - Creative design for improved recyclability.

- Packaging for improved shelf life.
- Consumer convenience.
- Stability on shelves for easy storage
- **Polymers in Agriculture and Water Conservation**
 - Water transportation, mulching, canal lining, drip irrigation, sprinkler system, low tunnels, poly house etc.
 - Controlled release system for fertilizer, pesticides, micronutrients, etc.
 - Innovative packaging for agriculture, floriculture and horticultural produce.
 - Controlled permeability films & packaging for improved shelf life
 - Novel Usage of plastics for food security.
 - Drinking water storage & transportation.
 - Polymer membrane for water purification /Desalination.
 - Devices for waste water, drainage, sewage treatment system.
- **Polymers in Medical and Pharmaceutical Applications**
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 - Affordable / cost effective implants, implements and devices.
 - New innovative products for medical application.
 - Polymer based new drugs delivery system
 - Polymer body implants.
 - Innovation in PPE Products
 - Innovation in ventilator, sanitizer etc.
- **Innovation in Petrochemicals and Newer Polymer Applications**
 - Sustainable substitutes for chemical intermediates of fossil origin
 - Innovation in Crackers, Catalyst Complexes for better yield, Biodiesel.
 - Clean products targeting circular economy.
 - Energy Efficient Technologies for Upstream Petrochemical Industries.
 - Materials for Energy Storage & Conversion.
 - Innovation in Coatings for Oil & Gas pipelines.
- **Research in the field of Polymer Science & Technology**
 - **(for Research Students of Academic Institute / Research Lab)**
 - Individual / Team of researchers in R & D Institutions & laboratories.
 - Original research work in polymeric material processing etc. leading to prototype development & future industrial applications.
- **Innovative “Start-up” venture in Polymer field.**
 - New start-up polymer industry for market needs, export oriented units, units related to waste management and recycling producing innovative product, import substitute in additives etc.
 - “Start-up” with indigenous technologies.
 - Eco-friendly, cost effective product solution to improve life standards.
- **Best Employer in Petrochemical Sector.**
 - (for R&D units / Manufacturing Industries with 3 consecutive years in operation & 20+ employees in role)**

- Employs qualified person from main stream / core subject.
- Maintains low / no attrition rate
- Treat employees fairly, responsive/respected and pays attention to employees well being, personal growth & develop professionally.
- Encourage creativity and provide opportunities to try & learn new things.
- Great work/life balance, benefits, compensation, autonomy, positive attitude and supportive & collaborative working atmosphere.
- Strong leadership and transparent / direct / effective / timely communication.
- **Special Award for the Life Time Achievement in Petrochemicals.**
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 - The Lifetime Achievement Award in Petrochemicals to recognize members who have contributed significantly and demonstrated outstanding achievements and longevity, within the field of Petrochemicals

MV/GS