List of completed Schemes/ Projects/ Programmes

Projects during (2020 -2021) (CSIR Funded Projects) (Rs.in Lakhs):

1. MLP 0301: **Design and development of electrodes to generate hydrogen peroxide (FTT-Chemicals) Bud. All. 117.50, Rec.75.427.**
2. MLP 0302: **Aerogel based thermal protection systems for nozzle surfaces in space and aerospace applications (FTT-AEISS), Bud: Alloc.174.80, Recd.45.407.**
3. MLP 0303: **Development of eco-friendly tri-valent chromium plating process, Bud: Alloc.30.10, Recd.12.471**
4. MLP 0304: **Design and development of Indigenous Smart Battery Management System for Energy Storage and E-vehicle applications electrodes to generate hydrogen peroxide (FTT, E2D), Bud. Alloc.71.24, Recd.10.817.**
5. MLP 0305: **Refurbished cathode material from spent lithium-ion batteries: a direct approach towards renewable feed stock (FTT, E2D), Bud. Alloc.131.00, Recd.60.296.**
6. MLP 0306: **Fabrication of 12 V, 500 F super capacitor device assembly (FTT, E2D), Bud: Alloc.88.120, Recd.9.524.**
7. MLP 0307: **Development of 250 W direct methanol fuel cell stack with in-house Nafion based hybrid membranes for portable and strategic applications (FTT, E2D), Bud. Alloc 147.48, Recd.26.049.**
8. MLP 0308: **Homocysteine specific novel sensor for diagnostic use (FTT, Healthcare), Bud: Alloc.8.60, Recd.8.600.**
9. MLP 0309: **Superhard Nanocomposite coatings by PVD onto automotive chain pins/ cutting tools (FTT, 4M), Bud: Alloc.38.22, Recd.28.944.**
10. MLP 0310: **Indigenous development of phosphors for image intensifier tubes (FTT, 4M), Bud: Alloc.37.520, Recd.30.453.**
11. MLP 0311: **Functional bio-degradable polymers with anti-bacterial properties for tissue engineering applications (FTT, 4M), Bud. Alloc.24.550, Recd.9.467.**
12. MLP 0312: **Reclamation of spent platinum group metals utilizing hazardous exhaust from plating baths (FTT, 4M), Bud. Alloc.37.465, Recd.4.152.**
13. MLP 0313: **Conputationally aided synthesis of artificial receptors: Biomimetic molecularly imprinted polymers (MIPs) (FBR, 4M), Bud: Alloc.26.050, Recd.8.086.**
14. MLP 0314: **Design and development of printable face shield to protect from COVID-19 (FTT, AEISS), Bud: Alloc.7.00, Recd.6.600.**
15. MLP 0315: **Tailored 2D supramolecular self-assembled architectures for investigating on-surface catalysis (FBR, Chemical), Bud: Alloc.33.20, Recd.7.542.**

16. MLP 0316: **Sustaniable Electrochemical Conversion of CO2 to Methanol using Highly Selective Catalytic Electrode/GDE (FBR, Chemical), Bud: Alloc.35.20, Recd. 20.518.**
17. MLP 0318: **Tailoring the graphene reinforced PEEK composite based filament for 3D printable structural componenets (FBR, AEISS), Bud. Alloc.137.00, Recd. 15.134.**
18. MLP 0319: **Perovskite Materials for Light Emitting Diode (LED) and Solar Cell (PSC) (FBR, E2D), Bud: Alloc.30.0176, Receed.0.0**
19. MLP 0320: **Organic radical energy storage devices (FBR, E2D), Bud: Alloc.45.06, Recd.0.0**
20. MLP 0322: **High energy density, low cost and environmentally benign redox flow batteries for bulk storage of electricity (FBR, E2D), Bud: Alloc.50.11, Recd.0.00**
21. MLP 0323: **Development of precious metal single atom catalyst and its theoretical validation for low cost polymer electrolyte Fuel Cells (FBR, E2D), Bud: Alloc.42.90, Recd.0.0**
22. MLP 0324: **Extreme fast charging Li-ion battery for E-mobility application (FBR, E2D), Bud: Alloc.62.85, Recd. 0.0**
23. MLP 0325: **Point of use (POU) filters for Arsenic remediation in drinking water (FBR, E3OW, Bud: Alloc.15.55, Recd.0.0.**
24. MLP 0326: **Development of electrodes and electrolytes for water electrolysis to generate hydrogen (FBR, 43.40),**
25. NWP 100: **CSIR Skill Initiative (SDG), Bud: Alloc.37.50, Recd.25.453.**
26. HCP 0101: **CSIR Virtual Laboratory (CVL), Bud:Alloc.21.50, Recd.8.525.**
27. HCP 36: **Developemt of plasma sprayed thermal brrier coatings for nozzle guide vanes of small gas turbine; Development of highly adherent erosion and corrosion resistant alloy/ceramic ultrathin multi-layered coatings for aircraft components (AMT, MISSION) 2.5**
28. HCP 26: **Surface modification of Ti alloy implans with bioactive, antibacterial & anticorrosive properties (Mission), Bud: Alloc. 23.540, Recd. 13.122**
29. HCP 27: **CSIR Innovation Centre for Next Generation Energy Storage Solutions (ICeNGESS, Mission, E2D) 9348.622**
30. HCP 30: **Development of Advanced Materials and Devices for Opto-electronic, Biomedical and Strategic Application (Adv. Materials, Mission), Bud: Alloc.14.380, Recd.6.757.**