## INHOUSE PROJECTS

| Academic Year | Roll No  | Student Name                    | Project Title   |
|---------------|----------|---------------------------------|---|
| 2021-22       | 16BME109 | SOLANKI BHADRESH                | Multi-response optimization in bobbin tool friction stir processing (AA6061/B4C)                    |
| 2021-22       | 16BME111 | SOLANKI UTSAV<br>PRAKASHCHNDRA  | Economic analysis of wind energy resources  |
| 2021-22       | 18BME011 | PRAJAPATI DARSHIT<br>VIJAYKUMAR | Experimental investigation of Solar<br>Photo Fenton process for Industrial<br>Waste Water Treatment |
| 2021-22       | 18BME013 | MARAKANA DEVARSH<br>DINESHBHAI  | Atmospheric CO2 Capture   |
| 2021-22       | 18BME021 | KELSHIKAR DIVYA<br>SACHIN       | Welding Of advanced steels  |
| 2021-22       | 18BME031 | JOSHI HETARTH RAKESH<br>KUMAR   | Experimental investigations on solar assisted heat pump water heater                                |
| 2021-22       | 18BME039 | RANINGA KASHYAP<br>PARESHBHAI   | Fluid flow instability of flow over a NACA 0012 airfoil using OpenFOAM                              |
| 2021-22       | 18BME045 | VACHHANI KUSHKUMAR<br>DIPAKBHAI | Climate change impact on renewable energy resources   |
| 2021-22       | 18BME046 | PARMAR LAXMIKANT<br>ARVINDBHAI  | Thermo economic analysis and optimization of refrigeration system                                   |
| 2021-22       | 18BME047 | YASH JAIN                       | Focused Wave generation based on<br>Linear NewWave Theory, using<br>OpenFOAM                        |
| 2021-22       | 18BME048 | MALAY VERMA                     | Fluid flow instability of flow over cylinder using OpenFOAM   |
| 2021-22       | 18BME054 | MAKWANA MIHIR<br>JITENDRAKUMAR  | Heat transfer enhancement techniques in boiling heat transfer                                       |
| 2021-22       | 18BME060 | SUTHAR MOHIT<br>RATANBHAI       | Additive Manufacturing of advanced Aluminium alloy  |
| 2021-22       | 18BME067 | NEHAL VARMA                     | Machine Learning applications in Additive Manufacturing   |
| 2021-22       | 18BME069 | PARIKH NIPUN HARDIT             | Wire arc additive manufacturing of advanced steels  |

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|---------------|----------|-------------------------------|---|
| 2021-22       | 18BME071 | VYAS NIRMAL JITENDRA          | Implementation of a secondary droplet breakup model in OpenFOAM   |
| 2021-22       | 18BME077 | PAREKH PARTH<br>JAYESHBHAI    | Bio Inspired wind farm layout optimization  |
| 2021-22       | 18BME079 | PARTH GABANI                  | Effect of process parameters on composite formation using bobbin tool friction stir processing                            |
| 2021-22       | 18BME080 | MOTKA PARTHKUMAR<br>MAVJIBHAI | Climate change impact on wind energy potential  |
| 2021-22       | 18BME086 | SHAH RAHIL<br>MUKESHKUMAR     | Exergy analysis of solar drying system  |
| 2021-22       | 18BME087 | RAHUL MANOJ PINCHA            | Offshore wind energy potential along India  |
| 2021-22       | 18BME088 | RANAVAYA RAM VISA             | Design of Bird Repelling Drone for Airports   |
| 2021-22       | 18BME089 | KANTARIYA RISHI DILIP         | Electric Vehicle Development: the past, present and future in India   |
| 2021-22       | 18BME093 | UNAGAR SAGAR<br>PRAVINBHAI    | Wire Arc Additive Manufacturing of Inconel 625  |
| 2021-22       | 18BME101 | PATEL SMEET<br>VISHNUBHAI     | Designing and analysis of platform<br>for solar system used for home<br>using natural composites                          |
| 2021-22       | 18BME102 | CHAMPANERI SMIT<br>NIKUNJBHAI | Wave induced FSI problems in OpenFOAM   |
| 2021-22       | 18BME105 | PATEL SPARSH<br>VINODBHAI     | SMA wire engine   |
| 2021-22       | 18BME107 | ZALA SWARUP JAHAJI            | Design and Development of platform for Solar Floater  |
| 2021-22       | 18BME110 | THIRA KISMAT PATEL            | Collaborative Robots in Robotics<br>Operating System  |
| 2021-22       | 18BME111 | KARN VIPULKUMAR<br>KAVATHIA   | Additive Manufacturing of stainless steel   |
| 2021-22       | 18BME115 | VEDANT SANGHVI                | A review of synthetic data generation using advanced machine learning techniques for mechanical engineering applications. |

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|---------------|-----------|--|---|
| 2021-22       | 18BME119  | PATEL VISHVKUMAR<br>DHARMENDRAKUMAR    | FEM of 4D printing of smart materials.  |
| 2021-22       | 18BME120  | GOVALIYA<br>VISHVRAJBHAI<br>SHANTUBHAI | Exergy analysis of solar water heating system   |
| 2021-22       | 18BME121  | CHUDASAMA VIVEK<br>LALITBHAI           | Simulation of SLM process using OpenFoam.   |
| 2021-22       | 18BME122  | VYAS VIVEKANAND<br>DINESHBHAI          | Fabrication of hybrid surface composite (AA6061/SiC/B4C) using bobbin tool friction stir processing |
| 2021-22       | 18BME126  | GOHIL YOGESHBHAI<br>KHIMAJIBHAI        | Numerical modelling of scutoid based Sandwich Structure   |
| 2021-22       | 18BME127  | SHAH YUG BIRENBHAI                     | Numerical analysis of flow and heat transfer from porous block                                      |
| 2021-22       | 18BME130  | DARIO BANZE                            | Waste heat recovery system for small scale industries   |
| 2021-22       | 18BME137D | HIM HARESHKUMAR<br>PATEL               | Design of solar powered aeration system   |
| 2021-22       | 18BME138D | JASH ASHISHKUMAR<br>MODI               | Non-contact inspection of machined products   |
| 2021-22       | 18BME139D | MAKWANA JATINKUMAR<br>VINODBHAI        | Condition monitoring of cutting tools using Vision system   |
| 2021-22       | 18BME143D | SAGARBHAI RUPAJI<br>MAJIRANA           | Machining of Wire Arc Additively<br>Manufactured parts  |
| 2021-22       | 18BME144D | SAHIL KUMAR JITENDRA<br>BORICHA        | Experimental investigations on machining apsects of difficult-to-cut materials                      |
| 2021-22       | 18BME146D | SIDDHARTH SINGH<br>PUROHIT             | Friction Stir Processing of<br>Additively Manufactured<br>components                                |
| 2021-22       | 18BME148D | TSHERING DORJI                         | Utilization of Phase Change<br>Materials for building energy<br>conservation                        |