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(71)Name of Applicant :

**1)Mr.Mayank Bharadvaj**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

**2)Dr. Vaibhav Trivedi**

**3)Ms. Bhavana Singh**

**4)Mr. Ayush Saxena**

**5)Mr. Prashant Kumar**

**6)Mr. Arvind Chaudhar**

**7)Mr. Lalit Pathak**

**8)Mr. Ankit Chauhan**

**9)Mr. Mohammad Javed**

**10)Mr. Prashant Gupta**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)Mr.Mayank Bharadvaj**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

**2)Dr. Vaibhav Trivedi**

Address of Applicant :Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**3)Ms. Bhavana Singh**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**4)Mr. Ayush Saxena**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**5)Mr. Prashant Kumar**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**6)Mr. Arvind Chaudhar**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**7)Mr. Lalit Pathak**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**8)Mr. Ankit Chauhan**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**9)Mr. Mohammad Javed**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

**10)Mr. Prashant Gupta**

Address of Applicant :Assistant Professor, Mechanical Engineering, IFTM University, NH9, Lodhipur Rajput, Delhi Road, Moradabad, Uttar Pradesh, Pin Code: 244001 MORADABAD -----

(57) Abstract :

The invention relates to a hybrid polymer composite reinforced with equal proportions of chemically treated murta and jute fibers in an epoxy matrix. The composite demonstrates superior mechanical strength, thermal stability, chemical resistance, and controlled water absorption/release. This novel composite material is suitable for sustainable applications across various industries, including automotive, construction, and consumer products.

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