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<p>(51) International classification :F01N0009000000, F01N0003021000, G01N0021640000, B01D0053940000, F01N0003023000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>		<p>(71)Name of Applicant : <b>1)Chitkara University</b> Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</p> <p><b>2)Chitkara Innovation Incubator Foundation</b> Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)Dr. Gaurav Sharma</b> Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, Chitkara University Institute of Engineering and Technology (CUIET), Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</p> <p><b>2)Sanjit Palial</b> Address of Applicant :Department of Computer Science &amp; Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</p> <p><b>3)Anishka</b> Address of Applicant :Department of Computer Science &amp; Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</p> <p><b>4)Raghav Goel</b> Address of Applicant :Department of Computer Science &amp; Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</p> <p><b>5)Dr. Manjeet Kharub</b> Address of Applicant :Assistant Professor, Department of Operations Management, Institute of Management Technology, Raj Nagar, Post Box No. 137, Ghaziabad, Delhi NCR-201001, India. Ghaziabad -----</p> <p><b>6)P Kavitha</b> Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, CVR College of Engineering, Vastunagar, Mangalpalli (V), Ibrahimpatnam (M), Rangareddy (D), Hyderabad, Telangana-501510, India. Hyderabad -----</p>
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(57) Abstract :

An emission filter for a vehicle, comprising a modular clamp-on interface for mounting the emission filter 101 on an exhaust outlet of the vehicle, an iris lid ring 104 grip exhaust outlets of varying diameters and pneumatic rods 105 for adjusting the iris lid ring 104 vertical height to ensure a secure fit of the emission filter 101 on the exhaust outlet of the vehicle, a thermoelectric cooler 107 cools the exhaust gases after filtration, a communication module are coupled to the processor module for automated cleaning of the exhaust of the vehicle and remote monitoring of the cleaning, a cleaning module includes a vibration unit 108, pneumatic bristles 109, a foaming agent spray 110, and a dust suction unit 111 for cleaning the exhaust, a camera 112 monitor the condition of the exhaust and automatically triggers cleaning of the exhaust upon detection of carbon buildup in the exhaust.

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