

Electrostatic Dust Mitigation and Smog Control Device transferred to Industry

Come winter and Delhi is plagued with inescapable smog and air pollution, which chokes the city for days closing down schools and suffocating the hapless people. A solution for this, the Electrostatic Dust Mitigation and Smog Control Device developed with the support of the Department of Science and Technology (DST) and Council of Scientific and Industrial Research (CSIR), has been transferred to Cloud Tech Pvt. Ltd. a Haryana based enterprise.

The device developed by CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh, under the project sponsored by Device Development Programme (DDP) of DST works on the principle of electrostatically-charged droplets of size towards the smaller side of micron range. Having such a small droplet size gives it enough time to stay in the air due to lesser gravitational pull. As they stay longer in the air, the droplets have enough time to interact with particles like PM10 and PM2.5.



This technology uses an electrostatic field to generate charged spray droplets which combine with oppositely charged dust and smog particles and settle down onto the ground very efficiently and effectively. Dr. Manoj K Patel and his team of young and enthusiastic researchers namely Mr. Anil Jangra, Mr. Ankit Khanchi, Mr. Anup Kumar, Ms. Yogita Singh, Ms. Sukriti Acharya, Ms. Anu Saini and other project interns have worked hard to make this a reality.

Dr. Manoj K Patel, Principal Investigator and innovator of the technology, mentioned that they are working in advance electrostatic spraying technologies for more than 8 years particularly on electrostatic spraying based technologies for agriculture & farmer's welfare, environment, health, energy, food safety and nutrition. "The multidisciplinary facet of electrostatic based

spraying technology is one of the emerging fields in recent times that can bring solutions to a varied range of societal and environmental problems,” he added.

The Transfer of Technology (ToT) agreement was signed by Sh. Vimal Saini and Sh. Sushant Saini, Directors, M/s. Cloud Tech Pvt. Ltd., Yamuna Nagar, Haryana and by Dr. Surendra Singh Saini, Principal Scientist & Head, Business Initiatives & Project Planning (BIPP), CSIR-Central Scientific Instruments Organisation, Chandigarh in the presence of Prof. R.K. Sinha, Director, CSIR-CSIO and other departmental Heads of CSIR-CSIO, Chandigarh. Ms. Durga Sakthi Nagpal, IAS and Deputy Secretary, Department of Commerce, Ministry of Commerce and Industry, Government of India, has graced the occasion as a Guest of Honour of the event of technology transfer.



“We have transferred many technologies based on electrostatic spraying principles to various industries in the recent past, and this technology is in-line with them. Electrostatic Dust Mitigation and Smog Control Device has great market potential and societal benefits. The widespread applications of developed technologies in the field of electrostatic spraying in various sectors would contribute largely to the ‘Make in India’ program and ‘Swasth Bharat’ campaign of the Government of India” said Dr. Surendra Singh Saini, Head, Business Initiatives and Project Planning (BIPP).”

In his statement during the technology transfer, Prof. R.K. Sinha, Director, CSIR-CSIO, Chandigarh, said, “We have a dedicated group working on electrostatic spraying technologies for agriculture, environment, and societal problems and committed to fulfill the basic human needs through technological interventions. The technologies developed in the field of electrostatic

spraying, particularly, very recent development of electrostatic dust mitigation and smog control device has a great socio-economic impact which is directly linked to our society and the common man”.