महाराष्ट्र शासन

# सहसंचालक तंत्रशिक्षण विभागीय कार्यालय, अमरावती.

शासकीय तंत्र निकेतन परिसर, गाडगे नगर, अमरावती ४४४६०३

Ph.No : (०७२१) २५७३०२७, २५७२५७७ Website: www.jdroamt.org

Email: roamravati@dtemaharashtra.gov.in Fax No: (०७२१) २५७७९१३

क्रमांक : विकाअ/शिक्षण/परिपत्रक/२०२१/1646

दिनांक 4 OCT 2021

प्रति,

**मा.कुलसचिव,**

संत गाडगेबाबा अमरावती विद्यापीठ,अमरावती.

**प्राचार्य,**

सर्व तांत्रिक व्यावसायिक पदविका,पदवी व पदव्युत्तर पदवी

अभ्यासक्रमाच्या संस्था,अमरावती विभाग,अमरावती.

**विषय : Installation of air-sanitization deviced based on Ultra-Violet C band irradiation**

**संदर्भ** : मा.सहसंचालक,तंत्रशिक्षण संचालनालय,म.रा.मुंबई यांचे पत्र क्रमांक २अ/एडीएम/२०२१/३९६ दिनांक १ ऑक्टोबर २०२१

वरील विषयास अनुसरुन, अखिल भारतीय तंत्रशिक्षण परिषदेच्या सर्व मान्यताप्राप्त संस्था/विद्यापीठांनी साभागृह, इमारती, एसी बस इत्यादींमध्ये अल्ट्रा-व्हायलेट सी बँड इरेडिएशनवर आधारित एअर-सॅनिटायझेशन उपकरणांच्या स्थापनेसाठीच्या कार्यवाहीबाबतचे अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली यांचे परिपत्रक क्रमांक AICTE/AB/Adv/MISC/२०२१-२२ दिनांक २९.९.२०२१ व त्यासोबत सहपत्रे सोबत जोडलेले आहे.

तरी याबाबत सदर परिपत्रक व सहपत्रामध्ये दिलेल्या निर्देशानुसार कार्यवाही करावी.

**सहपत्र : वरिलप्रमाणे**

(डॉ.आर.पी.मोगरे,)

**प्र.सहसंचालक**

तंत्रशिक्षण विभागीय कार्यालय,

अमरावती.

**प्रत: प्रोग्रामर,** तंत्रशिक्षण, विभागीय कार्यालय अमरावती यांना ईमेल करण्याकरीता.

महाराष्ट्र शासन

# तंत्रशिक्षण संचालनालय, महाराष्ट्र राज्य

३, महापालिका मार्ग, पत्र पेटी क्र.१९६७, मुंबई ४०० ००१.
दूरध्वनी क्र. ०२२-६८५९७४५०,
ई-मेल – desk2a@dtemaharashtra.gov.in, वेबसाईट: http://www.dtemaharashtra.gov.in

क्रमांक: २अ/एडीएम/ २०२१/३९६ दिनांक : 11 OCT 2021

प्रति,
सहसंचालक,
तंत्रशिक्षण विभागीय कार्यालय
मुंबई, पुणे, नाशिक, औरंगाबाद,अमरावती, नागपुर,

विषय :- Installation of air-sanitization devices based on Ultra-Violet C band irradiation.
संदर्भ : अखिल भारतीय तंत्रशिक्षण परिषद,नवी दिल्ली यांचे पत्र क्रमांक AICTE/ AB/ Adv/MISC/ 2021-22,दिनांक २९.९.२०२१

वरील विषयाबाबत कळविण्यात येते की, अखिल भारतीय तंत्रशिक्षण परिषदेच्या सर्व मान्यताप्राप्त संस्था / विद्यापीठांना सभागृह, इमारती, एसी बस इत्यादींमध्ये अल्ट्रा-व्हायलेट सी बँड इरेडिएशनवर आधारित एअर-सॅनिटायझेशन उपकरणांच्या स्थापनेसाठी कार्यवाही करण्याबाबत संदर्भाधीन पत्रान्वये कळविले आहे.

पत्रात कळविल्यानुसार "सीएसआयआर-सेंट्रल सायंटिफिक इन्स्ट्रुमेंट्स ऑर्गनायझेशन (सीएसआयआर-सीएसआयओ) ने अल्ट्रा-व्हायलेट सी बँड इरॅडिएशनवर आधारित एअर सॅनिटायझर उपकरण विकसित केले आहे. या संदर्भात सर्व उपलब्ध माहितीसह एक तपशीलवार परिपत्रक एआयसीटीईच्या वेबसाइटवर उपलब्ध असल्याचेही कळविले आहे. संस्था/विद्यापीठातील लिफ्ट्स, टॉयलेट्स, वॉशरूम इत्यादींसाठी 'सर्क्युलेटिंग एअर फ्लो प्युरलेव्हेटर टेक्नॉलॉजी' आणि चालू शैक्षणिक वर्षात शैक्षणिक सत्र सुरू करताना विद्यार्थ्यांच्या हिताच्या दृष्टीकोनातून वर्गखोल्यांमध्ये 'स्टँडअलोन एअर-सर्कुलेशन टेक्नॉलॉजी' चा वापर करण्याबाबत सूचित केले आहे.

सदर बाब आपल्या अधिनस्त सर्व तांत्रिक व्यावसायिक पदविका, पदवी,पदव्युत्तर पदवी अभ्यासक्रमांच्या संस्था तसेच आपल्या विभागात येणा-या विद्यापीठांना कळविण्यात यावी. सोबत अखिल भारतीय तंत्रशिक्षण परिषदेचे संदर्भाधीन पत्र व त्यासोबतची सहपत्रे जोडली आहेत.

( प्रमोद नाईक )
सहसंचालक, तंत्रशिक्षण,महाराष्ट्र राज्य,मुंबई

शिक्षण
04/10/21

1764
4/10/21

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प्रो.राजीव कुमार
सदस्य सचिव
Prof. Rajive Kumar
Member Secretary

सत्यमेव जयते

अखिल भारतीय तकनीकी शिक्षा परिषद्
(भारत सरकार का एक सांविधिक निकाय)
मानव संसाधन विकास मंत्रालय, भारत सरकार
नेल्सन मंडेला मार्ग, वसंत कुंज, नई दिल्ली - 110070
दूरभाष: 011-26131497
ई मेल : ms@aicte-india.org
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
(A Statutory Body of the Govt. of India)
Ministry of Human Resource Development, Govt. of India
Nelson Mandela Marg, Vasant Kunj, New Delhi-110067
Phone: 011-26131497
E-mail: ms@aicte-india.org

AICTE/AB/Adv/MISC/2021-22

Dated : 29-09-2021

**Circular**

**To,**

**All AICTE Approved University / Deemed to be University / Institutions**

**Sub.: Installation of air-sanitization devices based on Ultra – Violet C band irradiation**

**Dear Sir / Madam,**

Greetings from All India Council for Technical Education...!

During this ongoing pandemic, the Council of Scientific and Industrial Research (CSIR), the premier national R&D organization under Ministry of Science and Technology, has developed possible solutions and interventions that are required to contain the tremendous challenge faced by country due to SARS-COV-2 virus that causes COVID-19.

The aerosol, air-borne route of transmission of the SARS-COV-2 virus is now considered the most likely cause for spread of infection. This mode of virus dispersal has been confirmed by major agencies such as WHO, REHVA, ASH RAE as well as verified by careful studies worldwide including CSIR laboratories. As a possible mitigation measure, CSIR constituent laboratories CSIR-Central Scientific Instruments Organization (CSIR-CSIO), CSIR-Central Building Research Institute (CSIR-CBRI) and CSIR- Institute of Microbial Technology (CSIR – IMTech) have developed and made available air-sanitization devices based on Ultra – Violet C band irradiation.

The systems so developed have been validated for viricidal doses as well as safety certified, and the technology has been transferred to over 31 companies who have been installing them in various buildings and AC buses.

The devices, once extensively implemented in community spaces like schools and colleges, have potential of reducing cross-infections and restoring students' confidence in academic places.

A set of brochures on the mentioned products and technologies viz., 'Induct UV-C Technology' for Air Ducts of HVAC systems in auditoriums, buildings, AC Buses etc.); the 'Circulating air flow Purelevator Technology' for lifts, toilets, washrooms etc. and the 'Standalone Air-circulation technology' for rooms, have been enclose as annexures. The annexures also include the details of companies who hold the technologies from CSIR and implementing the technologies and the products.

All the AICTE approved Institutions / Universities are requested to take necessary steps for installation of ***air-sanitization devices based on Ultra – Violet C band irradiation in auditoriums, buildings, AC Buses etc.); the 'Circulating air flow Purelevator Technology' for lifts, toilets, washrooms etc. and the 'Standalone Air-circulation technology' for rooms to have potential of reducing cross-infections and restoring students confidence during the physical starting of classes in the current Academic Year.***

A list of industries capable of providing the products and Boucher of UV-C Air Duct Disinfection System – VI.06 / UVC Air Disinfection System for Elevator n -1.02/ Clean Air © Disinfection System are enclosed for ready reference.

Encl. as above.

**Regards,**

29.9.21

**(Prof. Rajive Kumar)**
**Member Secretary**

Copy to:

1. **All the Principal Secretaries of State/UT**
2. **All the Vice Chancellors of Affiliating Universities / State Private / Deemed-to-be-Universities**
3. **The Directors of State DTEs**

डॉ. शेखर चिं. मांडे
एफएनए, एफएएससी, एफएनएएससी
सचिव
वैज्ञानिक और औद्योगिक अनुसंधान विभाग तथा
महानिदेशक

Dr. Shekhar C. Mande
FNA, FASc, FNASc
Secretary
Department of Scientific & Industrial Research and
Director General

भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद
वैज्ञानिक और औद्योगिक अनुसंधान विभाग

Government of India
Ministry of Science and Technology
Council of Scientific & Industrial Research
Department of Scientific & Industrial Research



D.O.No. 03/MI/ UV-CSIR-CSIO/MinEdn/TMD-SeMI-2021/67

August 23, 2021

**Subject: CSIR's Technological Solutions for cautious reopening of Higher Education Institutes**

**Dear Shri Khare,**

During this ongoing pandemic, the Council of Scientific and Industrial Research (CSIR), the premier national R&D organization under Ministry of Science and Technology, has developed possible solutions and interventions that are required to contain the tremendous challenge faced by country due to SARS-COV-2 virus that causes COVID-19.

The aerosol, air-borne route of transmission of the SARS-COV-2 virus is now considered the most likely cause for spread of infection. This mode of virus dispersal has been confirmed by major agencies such as WHO, REHVA, ASH RAE as well as verified by careful studies worldwide including CSIR laboratories. As a possible mitigation measure, CSIR constituent laboratories CSIR-Central Scientific Instruments Organization (CSIR-CSIO), CSIR-Central Building Research Institute (CSIR-CBRI) and CSIR - Institute of Microbial Technology (CSIR- IMTech) have developed and made available air-sanitization devices based on Ultra-Violet C band irradiation.

The systems so developed have been validated for viricidal doses as well as safety certified, and the technology has been transferred to over 31 companies who have been installing them in various buildings and AC buses. The Uttar Pradesh State Road Transport Corporation (UPSRTC) air-conditioned buses have been retrofitted with these systems, which are running on road for the past three months. Mathematical modelling indicates that the probability of another passenger getting COVID infection from a single infected passenger in an AC bus over an 8-hour journey reduces from about 40% (assuming no mask use) to less than 0.1%, if the UV-C air sanitization systems are used.

You may be aware that before the recent onset of the Parliament Session, the UV-C systems were installed by CSIR in the Lok Sabha Chamber and the Central Hall of Parliament building within a matter of few days.

The devices, once extensively implemented in community spaces like schools and colleges, have potential of reducing cross-infections and restoring students' confidence in academic places. This is especially so in case of Ministry of Education which cater to large number of scholars at a time and therefore have large foot-falls at any given time. IITs, NITs and IISERs

can use such technologies/ products of CSIR to facilitate untroubled return of scholars on complete reopening education institutions. The solutions can either be self-implemented or purchased from the vendors.

A set of brochures on the mentioned products and technologies viz., 'Induct UV-C Technology' for Air Ducts of HVAC systems in auditoriums, buildings, AC Buses etc.); the 'Circulating air flow Purelevator Technology' for lifts, toilets, washrooms etc. and the 'Standalone Air-circulation technology' for rooms, have been enclosed as annexures. The annexures also include the details of the companies who hold the technologies from CSIR and implementing the technologies and the products.

I therefore seek your kind intervention in implementing these solutions in various esteemed institutions under Ministry of Education within shortest time possible so as to help restrain further waves of the pandemic.

Although the attached brochures of the UV-C retro-fit units have the contact details of the authorised vendors, CSIR would be happy to offer guidance and any assistance as required. If you so desire, we could make a presentation on the solutions to you and the team at the Ministry.

I look forward to your response.

With warm regards,

Yours Sincerely,

(Shekhar C. Mande)

Shri Amit Khare,
The Secretary,
Department of Higher Education,
Ministry of Education
127-C, Shastri Bhawan, New Delhi-110001

**Annexure 1**

## List of Industries capable of providing the products

| S. No. | Name of Industry | Address | Email |
|---|---|---|---|
| 1 | **Aarco Engineering Projects Pvt Ltd www.aarcoair.com** | Gate No 77 Plot no 7, 8 Jyotiba Nagar, Nigadi-Talawade Road, Talawade, Pune, Maharashtra, 412114 | tasneem@aarcoair.com |
| 2 | **Flexatherm Expanllow Pvt. Ltd. 354, G I D C, Makarpura, Vadodara, Gujarat 390010** | 354, GIDC Industrial Estate, Makarpura, Vadodara, Gujarat-390010 | sales@flexatherm.com |
| 3 | **Manohar Mane Director Aeon Creations P Ltd Mumbai, INDIA.** | J-79, MIDC, MIDC Road, Tarapur, Palghar, Maharashtra-401506 | svta2001@gmail.com |
| 4 | **Nachiket Sonje Shreeson Technologies Pvt. Ltd. Works Address: H - 166 / 167 / 168, MIDC Ambad, Nashik, Maharashtra State India - 422010** | H- I 661 \| 61 I 68, MIDC, AMBAD, NASHT K, Nashik, Malrarashtra. 422t01 | shreeson.acc@gmail.com |
| 5 | **Reiz Electrocontrols Pvt. Ltd. 321, Phase-II, Sector 7, Imt** | 321, REIZ ELECTROCONTROLS PVT. LTD., SECTOR-7, PHASE-II, IMT MANESAR, Gurgaon, Haryana, 122050 | sidhartha@reizindia.com atul@reizindia.com |

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|---|---|---|---|
| | **Manesar, Gurugram, Haryana 122050** | | |
| 6 | **Saras Engineering and Projects Pvt Ltd** | C-5/2, Lane No. 2, Road No. 2, Vikrampuri, Secunderabad, Telangana - 500009 | johnson.seaprojects@gmail.com |
| 7 | **Indicare Health Solutions Pvt.Ltd A18/B1 extn., Mohan Co-operative Industrial Estate \| Mathura Road \| New Delhi 110044 \| India Mobile** | SECOND FLOOR, A-18/B1 EXTN,, MATHURA ROAD, MOHAN COOPERATIVE INDUSTRIAL ESTATE, South Delhi, Delhi, 110044 | rashmi.wadhwa@indicare.co.in |
| 8 | **Devintec Electrical Technologies** | GT Road, Village Paragpur, Jalandhar,Punjab – 144010 | dttenders@gmail.com devintech123@gmail.com ramneekhanda@devintec.in gauravchopra@devintec.in |
| 9 | **SRIAS ENGINEERING PRIVATE LIMITED Euroteck Environmental Private Limited, Hyderabad, Telangana** | 1805, PEGASUS B BLOCK MEENAKSHI SKYLOUNGE, KHANAMET, RANGAREDDY HYDERABAD, Ranga Reddy, Telangana, 500084 | bd@euroteckindia.com |
| 10 | **Ozone Research & Application (I) Pvt. Ltd. 902,"Ozone House" Khare town, Dharempeth, Nagpur-440010. (M.S) India.** | 902, ABHANG, KHARE TOWN, DHARAMPETH, Nagpur, Maharashtra, 440010 | marketing@oraipl.com |

925375/2021/CENTRAL REGISTRY SECTION

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|---|---|---|---|
| 11 | **Elite Air Techniques Pvt. Ltd. Plot No. 2, Sector-16, HSIIDC Bahadurgarh , Haryana-124507 Only LOE is available, for rest request has been sent** | 17, SECTOR-16 , HSIIDC, BAHADURGARH, Jhajjar, Haryana, 124507 | mudit.aggarwal@eflow.in |
| 12 | **Airific Systems Pvt. Ltd. BC6, Ground Floor, Advant Navis Business Park, Sector 142, Expressway Noida - 201305** | FIRST FLOOR, BC-6, ADVANT NAVIS BUSINESS PARK, NEAR SHADRA VILLAGE, SECTOR-142, NOIDA, Gautam Buddha Nagar, Uttar Pradesh, 201305 | sales@uvheal.in chandra.shekhar@uvheal.in |
| 13 | **QUALITY NEEDS AUTOMOTIVES PRIVATE LIMITED Q uality Needs Automotives Pvt. Ltd. H.O.: B-72, Bhagat Singh Colony, Bhiwadi, Distt. Alwar Rajasthan. CIN:U50300RJ2008PTC027596 MSME UAN: RJ02B0004347 Phone: 9813211925, Email:** | G-1/167D, RIICO INDUSTRIAL AREA,IID CENTRE, KHUSHKHERA,BHIWADI, Alwar, Rajasthan, 301019 | gneeds.auto@gmail.com |

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|---|---|---|---|
| | **qneeds.auto @gmail.com** | | |
| 14 | **TICEON-HSE LLP Chingavana m PO Kottayam , Kerala-686531** | 267/425, OTTAPLAKKAL BUILDING, CHINGAVANAM, KOTTAYAM, Kottayam, Kerala, 686531 | ticeonhse@gmail.com |
| 15 | **Alpha Linear Plot No. V.55, 2nd Stage Peenya Industrial Estate Bangalore – 560 058.** | Plot No. V.55, 2nd Stage<br><br>Peenya Industrial Estate<br><br>Bangalore – 560 058. | shakeer@alphalinear.co.in<br>alpl@alphalinear.co.in |
| 16 | **Koyna Engineers, Nasik** | , 106, MIDC, SATPUR, NASHIK, Nashik, Maharashtra, 422007 | koynaeng.nsk1@gmail.com |
| 17 | **Ultrafresh Marketing Pvt. Ltd. Mahalaxmi, Mumbai** | 2ND FLOOR, CB 344, RING ROAD NARAINA, NEW DELHI, South West Delhi, Delhi, 110028 | bdultrafrh@gmail.com |
| 18 | **Cenaura Technologies Pvt Ltd, Hyderabad** | FT-3-G,BLOCK-A, JAIN SRIKAR AUROVIL, KHANAMET, MADHAPUR, Hyderabad, Telangana, 500081 | prabhaker.yasa@cenaura.com, ragini.ravikiran@cenaura.com |
| 19 | **Ideamines Management Consultants Pvt. Ltd.** | Shyam babu srivastva P 2/21/E, Gautam Buddha Nagar, Uttar Pradesh, 201301 | pramendrasri@ideamines.com |
| 20 | **M/s Penguins India, a Odisha based MSME** | 2nd Floor, Plot No. C/6, Commercial Plot, Civil Township, Rourkela, Sundargarh, Odisha, 769004 | pradyot@alfaindia.com |

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|---|---|---|---|
| 21 | **Softrays Power Solutions TC 13/1943(1), Sangeetha Building Kannammoola, Medical College Post Thiruvananthapuram-695 011, Phone: 0471-2550723,2440723** | KP-1 I-373, SOFTRAYS POWER SOLUTIONS, NALANCHIRA, NALANCHIRA P.O, Thiruvananthapuram, Kerala, 695 0 1 5 | softrayspowersolutions@gmail.com |
| 22 | **KIRIT Engineering, Office Add: 126,Ganesh Colony, Jalgaon. 425001 Works: 8,316/1/2, Manyar kheda , Nr. MIDC, Jalgaon. (M.S)** | PLOT NO 126, PUSHPAKUNJ, GANESH COLONY, JALGAON, Jalgaon, Maharashtra, 425001 | kiritgroup@gmail.com |
| 23 | **CHOLA GEOENERGY PRIVATE LIMITED A: No.2/84 Vendyampatti Main road, Vendyampatti, Thanjavur, Tamilnadu,India Pin:613402** | C4, Third Floor, C142,, Jaisree Towers, 6th Cross East, Thillai Nagar, Tiruchirappalli, Tamil Nadu, 620018 | sales@cgpl-in.com |
| 24 | **BDS Décor & Prefab Pvt Ltd 181, phase-1, Ind. Area, Chandigarh** | Plot No. 181, Phase 1, Industrial Area, Chandigarh, Chandigarh - 160002 | bdsprefabbds@gmail.com |

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|---|---|---|---|
| 25 | **LADDHA ENTERPRISES AKOLA \| NAGPUR PROZONE, Opp. Birla Gate No. 2, Birla Road, Tapdia Nagar, AKOLA - 444 005** | PLOT NO.-7, M.I.D.C., ., PHASE NO-II ,, Akola, Maharashtra, 444104 | laddhacooling@gmail.com |
| 26 | **Sukrut UV Systems Pvt. Ltd. Pune Survey No. 24, Plot Hissa No 1A/1B Narhe , Pune 411041- Maharashtra-India** | Sr. no 24, Plot Hiss No.1A/1B, NARHE, HAVELI, Pune, Maharashtra, 411041 | nagesh.k@sukrutuv.com milind.joshi@sukrutuv.com |
| 27 | **ABS AIR Tech Pvt. Ltd. Plot No - 37A, Udyog Vihar Phase VI, Sector - 37, Near Hero Honda Chowk, Gurgaon (122001), Haryana (India)** | PLOT NO. 37 A,, SECTOR-37, PHASE-VI, UDYOG VIHAR, GURGAON, Gurgaon, Haryana, 122001 | anchalabsairtech@gmail.com absairtechpvtltd@gmail.com |
| 28 | **Synergy Enterprises** | 136-140/80, INDUSTRIAL AREA, PHASE 1,, CHANDIGARH, Chandigarh, Chandigarh, 160002 | synergy1042@yahoo.co.in |
| 29 | **Unisem Electronics Pvt ltd 193, 18th A main, 4th Cross Road, 6th Block, Koramangala** | 193, 18th A Main, 6th Block, Koramangla, Bengaluru, Urban, Karnataka-560095 | eliyas@unisemindia.com |

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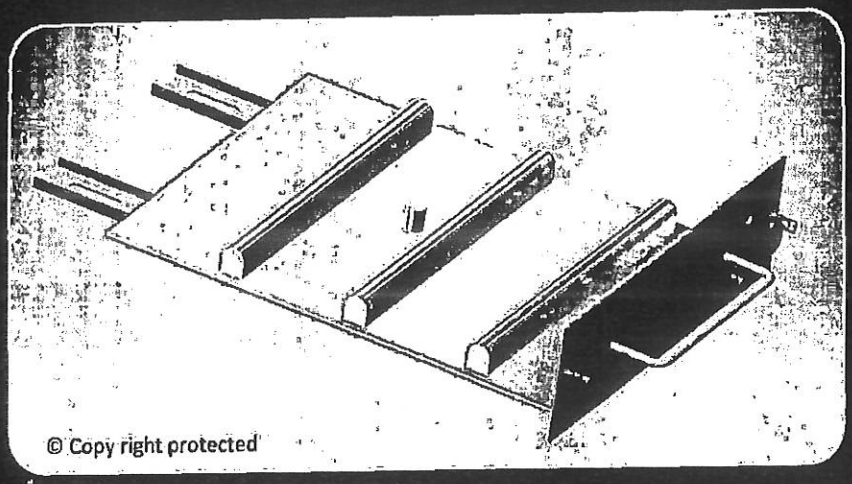
|---|---|---|---|
| | **, Bangalore-560095** | | |
| 30 | **Magneto Cleantech Pvt. Ltd., New Delhi** | 9/22 Nehru Enclave, New Delhi, Delhi 110019 | bhanu@magneto.in |
| 31 | **Paras Defence & Space Technologies Ltd.** | D-112, Thane - Belapur Rd, MIDC Industrial Area, Nerul, Navi Mumbai, Maharashtra 400706 | amit@parasdefence.com |

925

# UV-C Air Duct Disinfection System -V1.06

For purification of air in Air Ducts




CSIR INDIA

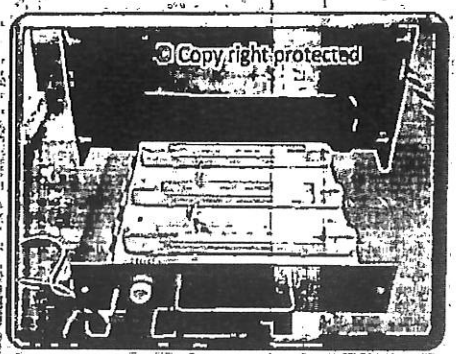
**Application:**

The UV-C Air Duct Disinfection System -V 1.06 is designed as a retrofittable unit into existing HVAC Air Ducts using customizable sliding mechanisms. It consists of a slide mechanism, regulated UV light source and sensors. The device is used as a retrofit attachment to any existing Air Duct by minor modifications (Cut Slot and fitting) into it. The UV-C light intensity is carefully controlled to give the required dosage to the given air flow to inactivate any Virus & bacteria present. Presently, the intensities are calibrated to inactivate the COVID 19 virus in similar simulated flow conditions in the laboratory. The mechanism allows user to position the light source in place easily and easy removal as and when maintenance or cleaning is required.

**Function:** UV-C Light source emits light having high energy photons that inactivates virus / bacteria contained in the air flowing through the air duct

## Specifications:

| | |
|---|---|
| Current Rating: | 220 V AC |
| Device type: | Installable /customized retrofit for HVAC systems |
| Weight: | ~ 1.5 Kg. (Customizable) |
| Size: | 400mm/500mm/60 mm (Customizable) |
| Kind of lamp: | Mercury or amalgam lamps as per customer requirement |
| No. of Lamp: | 3-6 (each of 10 W) |
| Intensity: | Variable (Customizable) at required for give air flow conditions |
| Slides: | Standard |
| Reflector: | Teflon / Aluminum |
| Sensors: | Customizable UV intensity, temperature, humidity etc. as per requirement |




Developed by CSIR-Central Scientific Instruments Organisation, INDIA.
www.csio.res.in

Contacts: Director, CSIO

**Features:**

- Customizable design
- Rugged
- Easy to use
- Versatile in settings
- Large volume intake capacity
- High Flow rate with control

PAN CSIR

**CERTIFICATIONS:**

- Under Progress

## International business contact: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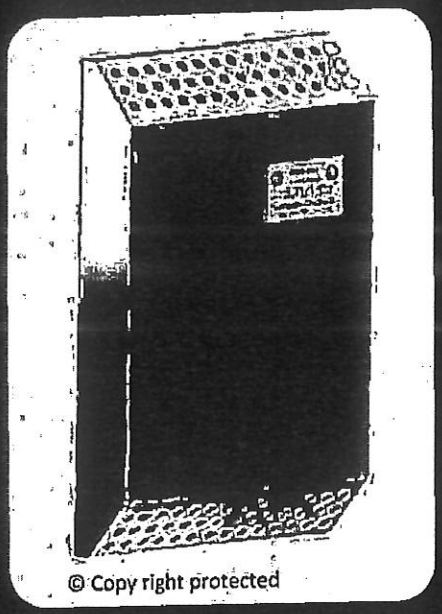
# PURElevator

## UVC Air Disinfection System for Elevator n -1.02





PAN CSIR

**Application:**

PURElevator - UVC Air Disinfection System for Elevator is used for disinfect air from Elevator, where there is possibility of Virus & Bacteria flows through aerosols. It may be used for disinfecting room, hospital, Closet, Bus, train, Office space. The system is calibrated to flow air at specific rates through specially designed aerodynamic structures. Variable flow control has been optimized within lab which can be customized as per requirement. It provided to make the device more versatile in design and robust for various applications.

**Function:** Suction of air at calibrated flow rates and disinfect Air which flows through the device

**Specification:**

| | |
|---|---|
| Flow Rate: | 18 CFM |
| Current Rating: | 220 AC 2 Amp power supply, |
| Max current allowed: | 1.0 Amp |
| TUV Light: | 254nm (11watt) |
| Surge protection: | Yes |
| Device type: | Portable |
| Weight: | 0.8 Kg. (Customizable) |
| Power indicator: | Yes |
| Other Features: | Customizable |

Features:

- Customizable design
- Rugged
- Easy to use
- Versatile in settings
- Large volume intake capacity
- High Flow rate with control

PAN CSIR

CERTIFICATION:

- Under Progress

## International business contact: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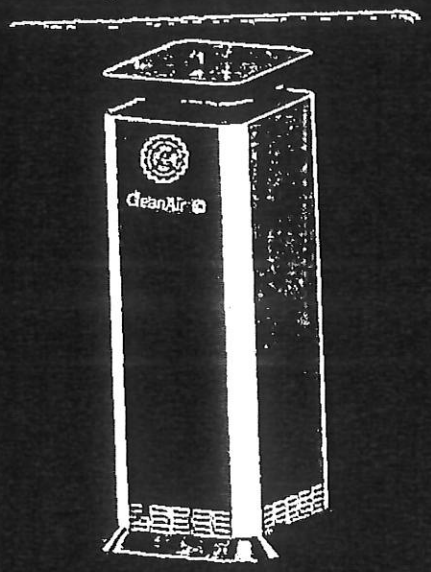
# CleanAir© Disinfection System

Circulating Air disinfection system for Indoor Place






PAN CSIR

## Application:

The risk of airborne transmission is especially high in indoor, crowded spaces. Transmission of SARS-CoV-2 virus particles through tiny respiratory droplets, is one of the main ways that Covid-19 spreads between people. The standalone air-circulating and sanitizing units developed by CSIR provide an effective means to disinfect the indoor air and to deactivate the virus in aerosols using Ultra-violet light. The CleanAir© system catering to room sizes of about 250 sq feet, provide protection from viral infections in air. The systems work on the principle of airstream disinfection using Ultra-violet (C-band) of 254 nm wavelength to reduce the viability of microorganisms. The UV-C light damages the DNA and RNA of micro-organisms and renders them unviable. The Clean Air© system uses a patented technology to cause swirling air patterns to trap light for long times within the device while delivering the required UV-C light doses to the air inside effectively. The system using powerful UV-C lamps inside is compact and is also suitable for small cabins in a business establishment. These units are designed using powerful computational fluid dynamics modelling to deliver a stream of pure sanitized air as a stream on the inhabiting persons to further serve as a protective air curtain.

**Function:** Suction of air at calibrated flow rates through specially engineered paths and disinfect the air using UV-C light. Use the air-flows within rooms and confined spaces to create a protective air-curtain around the people.

**Specification of Circulating CleanAir© disinfection system**

| | | | |
|---|---|---|---|
| Flow Rate: | 20 CFM () | Surge protection: | Yes, Alarm |
| Current Rating: | 200V AC 3 Amp | Noise level: | less than 50db |
| Light Source: | UV-C light of 254nm | Device type: | Portable |
| Dosage: | Viricidal for Air flow inside | Weight: | 10 Kg. (Customizable) |

Developed by CSIR-(CBRI-CSIO), INDIA.
www.csio.res.in, www.cbri.res.in

Contacts: Director, CSIR-CSIO

Features:

- Circulating swirling flow.
- Fire alarm with smoke detector.
- Leakage free UV holder and covers.
- Real time UV On/Off Indication.
- Versatile in settings.
- Portable.
- Optimum air intake capacity
- Customizable for size of application.

PAN CSIR

CERTIFICATION:

- Under Progress

## Business contact: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