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DRDO designs AI-based algorithm to detect COVID-19 in chest X-Rays

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This will be utilized by 5C Network, Indiaâ??s largest digital network of Radiologists, with support of HCG Academics across India



DRDO (Defence Research & Development Organisation) Centre for Artificial Intelligence and Robotics, with the support of 5C Network & HCG Academics has developed “ATMAN AI”, an Artificial Intelligence algorithm that can detect the presence of COVID-19 disease in Chest X Rays.

The ATMAN AI is an artificial intelligence tool for Chest X-ray screening as triaging tool in Covid-19 diagnosis which is a method for rapid identification and assessment of lung involvement.

This will be utilized by 5C Network, India’s largest digital network of Radiologists, with support of HCG Academics across India.

Triaging COVID suspect patients using Xray is fast, cost effective and efficient. It can be a very useful tool especially in smaller towns in our country owing to lack of easy access to CT scans.

This will also reduce the existing burden on radiologists and make CT machines which are being used for COVID be used for other diseases and illness owing to overload for CT scans.

The novel feature namely “Believable AI” along with existing ResNet models have improved the accuracy of the software and being a machine learning tool, the accuracy will improve continually.

Chest X-Rays of RT-PCR positive hospitalized patients in various stages of disease involvement were retrospectively analyzed using Artificial Intelligence [Deep Learning & Convolutional Neural Network] models by an indigenously developed deep learning application by CAIR-DRDO for COVID -19 screening using digital chest X-Rays. The algorithm showed an accuracy of 96.73%.

With the ongoing second wave of infections, this application can help with a more directed and focused approach. 5C Network, which is connected to over 1,000 hospitals across India, will now make ATMAN available to state-run and private hospitals.