



Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

Application Details

| | |
|----------------------------------|---|
| APPLICATION NUMBER | 202241000074 |
| APPLICATION TYPE | ORDINARY APPLICATION |
| DATE OF FILING | 02/01/2022 |
| APPLICANT NAME | 1 . S ARUN 2 . VNR Vignana Jyothi Institute of Engineering and Technology 3 . Rachana Jaiswal,HNB Garhwal(A Central University), 4 . Dr (CS) Vinit Sikka,Manav Rachna International Institute of Research and Studies 5 . Dr Anjali Singh,Manav Rachna International Institute of Research and Studies 6 . Suparba Tapna,Durgapur Institute of Advanced Technology & Management 7 . Manoj Kumar Karnena,GITAM Institute of Science 8 . Shekhar ,Dewan VS Institute of Engineering and Technology 9 . Gyanendra Kumar Singh ,Dewan VS Institute of Engineering and Technology |
| TITLE OF INVENTION | A Algorithm Based on Deep Learning for the Detection of COVID-19 Infections |
| FIELD OF INVENTION | COMPUTER SCIENCE |
| E-MAIL (As Per Record) | yesarun1810@gmail.com |
| ADDITIONAL-EMAIL (As Per Record) | yesarun1810@gmail.com |
| E-MAIL (UPDATED Online) | |
| PRIORITY DATE | |
| REQUEST FOR EXAMINATION DATE | -- |
| PUBLICATION DATE (U/S 11A) | 14/01/2022 |

Application Status

| | |
|--------------------|---|
| APPLICATION STATUS | Awaiting Request for Examination |
|--------------------|---|

[View Documents](#)

➡ Filed ➡ Published ➡ RQ Filed ➡ Under Examination ➡ Disposed

In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

(54) Title of the invention : A Algorithm Based on Deep Learning for the Detection of COVID-19 Infections

(51) International classification :G06T0007110000, G06T0007000000, G06T0007143000, G06Q0050220000, G06Q0040000000

(86) International Application No :PCT//
Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :
1)S ARUN
 Address of Applicant :SUBRAMANIYA BHARATHI ST ,BALAJI NAGAR NAGAR , ANAKAPUTHUR ,CHENNAI -----

2)VNR Vignana Jyothi Institute of Engineering and Technology
3)Rachana Jaiswal,HNB Garhwal(A Central University),
4)Dr (CS) Vinit Sikka,Manav Rachna International Institute of Research and Studies
5)Dr Anjali Singh,Manav Rachna International Institute of Research and Studies
6)Suparba Tapna,Durgapur Institute of Advanced Technology & Management
7)Manoj Kumar Karnena,GITAM Institute of Science
8)Shekhar ,Dewan VS Institute of Engineering and Technology
9)Gyanendra Kumar Singh ,Dewan VS Institute of Engineering and Technology
 Name of Applicant : NA
 Address of Applicant : NA

(72)Name of Inventor :
1)Dr. Ranjan K. Senapati,VNR Vignana Jyothi Institute of Engineering and Technology
 Address of Applicant :VNR Vignana Jyothi Nagar,Pragathi Nagar Nizampet(S.O) Hyderabad Telangana India 500090 -----

2)Rachana Jaiswal,HNB Garhwal(A Central University),
 Address of Applicant :Assistant Professor,Department of Business Management School of Management HNB Garhwal(A Central University) Srinagar, Uttarakhand India -----

3)Dr (CS) Vinit Sikka,Manav Rachna International Institute of Research and Studies
 Address of Applicant :Faculty of Commerce Manav Rachna International Institute of Research and Studies Manav Rachna Campus Rd, Faridabad, Haryana India 121004 -----

4)Dr Anjali Singh,Manav Rachna International Institute of Research and Studies
 Address of Applicant :Associate Professor, Department of Business Studies,Faculty of Commerce Manav Rachna International Institute of Research and Studies Manav Rachna Campus Rd, Faridabad, Haryana India 121004 -----

5)Suparba Tapna,Durgapur Institute of Advanced Technology & Management
 Address of Applicant :Assistant Professor-ECE Durgapur Institute of Advanced Technology & Management DIATM G T Road, Durgapur, Rajbandh, Durgapur, West Bengal INDIA 713212 -----

6)Manoj Kumar Karnena,GITAM Institute of Science
 Address of Applicant :Teaching Assistant and Researcher , GITAM Institute of Science ,GITAM Gandhi Nagar, Rushikonda Visakhapatnam Andhra Pradesh India 530045 -----

7)Shekhar ,Dewan VS Institute of Engineering and Technology
 Address of Applicant :Assistant Professor ECE,Dewan VS Institute of Engineering and Technology By-Pass Road, NH 58, Partapur, Meerut Uttar Pradesh India 250103 -----

8)Gyanendra Kumar Singh ,Dewan VS Institute of Engineering and Technology
 Address of Applicant :Assistant Professor ECE, Dewan VS Institute of Engineering and Technology By-Pass Road, NH 58, Partapur, Meerut Uttar Pradesh India 250103 -----

(57) Abstract :
 Millions of people throughout the world have been infected by the coronavirus, which is spreading at an alarming rate and taxing the resources of the healthcare system. For COVID-19 detection, PCR screening is the method of choice. When used on asymptomatic patients, CT imaging has proven to be a reliable diagnostic aid for COVID-19. Because of the high prevalence of COVID-19 infections in CT slices, automated infection segmentation techniques can track the progression of sickness. As a result of the high degree of variation in size, shape, contrast, and intensity of the COVID-19 infection region images, the segmentation approach faces significant difficulties. The present invention presents an automated segmentation approach based on deep learning for the detection and delineation of COVID-19 infections in CT scans. Additionally, as compared to existing methodologies, this suggested innovation will require less time and money to identify the infection and annotate the infection areas. This invention will assist physicians in determining the evolution of covid-19 illness, as well as quantifying the disease's load and severity, by segmenting the lung organ from the CT scan as a region of concern and then segmenting the infections contained inside it.

No. of Pages : 12 No. of Claims : 5