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(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED EARLY PREDICTION OF LUNG CANCER BASED ON THE COMBINATION OF TRACE ELEMENT ANALYSIS IN URINE USING CLOUD AND DEEP LEARNING ALGORITHMS

<p>(51) International classification :G06N 030200, G06N 030400, G06N 030800, G06N 070000, G16H 502000</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 : 1)Dr. Santosh Kumar Singh Address of Applicant :Associate Professor, Department of Electrical Engineering, G H Raisoni University Amravati, Anjangaon Bari Rd, Badnera, Amravati, Maharashtra 444701, India -----</p> <p>2)Dr. Shankar Amalraj 3)Dr D S S N RAJU 4)Dinesh Mendhe 5)Mrs. Rasika Manoj Rewatkar 6)Satyakam Rahul 7)Vaggi Ramya 8)Dr. R. Raghu 9)Sathyendra Bhat J 10)Naga Mallikharjunarao.Billa</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr. Santosh Kumar Singh Address of Applicant :Associate Professor, Department of Electrical Engineering, G H Raisoni University Amravati, Anjangaon Bari Rd, Badnera, Amravati, Maharashtra 444701, India -----</p> <p>2)Dr. Shankar Amalraj Address of Applicant :Assistant Professor, Department of Electrical Engineering, G H Raisoni University Amravati, Anjangaon Bari Rd, Badnera, Amravati, Maharashtra 444701, India -----</p> <p>3)Dr D S S N RAJU Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Gayatri Vidya Parishad College for Degree and P G Courses (A), Rushikonda, Visakhapatnam, Andhra Pradesh, India -----</p> <p>4)Dinesh Mendhe Address of Applicant :Computer and Information Research Scientist, Department Office of Research Computing, Rutgers, the State University of NJ, 57 US Highway 1, New Brunswick, NJ 08901-8554, New Brunswick, New Jersey, USA -----</p> <p>5)Mrs. Rasika Manoj Rewatkar Address of Applicant :Assistant Professor, Department of Information Technology, Rashtrasant Tukdoji Maharaj University, Nagpur, Kavikulguru Institute of Technology and Science, Mauda Road, Post K. K. Nagar, Parsoda, Ramtek, Nagpur, Maharashtra, India -----</p> <p>6)Satyakam Rahul Address of Applicant :Research Scholar, Department of Computer Application, Lovely Professional University, Jalandhar, Phagwara, Punjab , India -----</p> <p>7)Vaggi Ramya Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, GMR Institute of Technology, Rajam532127 Vizianagaram District, Andhra Pradesh. -----</p> <p>8)Dr. R. Raghu Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, The Oxford College of Engineering, 10th Milestone, Hosur Rd, Bommanahalli, Bengaluru, Karnataka 560068, India -----</p> <p>9)Sathyendra Bhat J Address of Applicant :Assistant Professor , Department of MCA, St Joseph Engineering College, Vamanjoor, Mangaluru, Dakshina Kannada , Karnataka, India -----</p> <p>10)Naga Mallikharjunarao.Billa Address of Applicant :Assistant Professor, Department of Computer Science & Engineering , Guntur Engineering college(GEC), JNTU-K Yanamadala -----</p>
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(57) Abstract :

Artificial Intelligence based early prediction of lung cancer based on the combination of trace element analysis in urine using cloud and Deep Learning algorithms Abstract: The lungs are responsible for controlling the flow of air throughout the body, which ensures that every cell in the body receives the oxygen it requires. Additionally, because they filter the air, they lessen the quantity of dirt and bacteria that could potentially enter the lungs. Each phase is completed in parallel with the others. The lungs are not in danger as a direct result of the natural defences that the body possesses. Even if you follow all of these recommendations, there is still a chance that you could have lung difficulties. Having infected or enlarged lungs increases the risk of developing complications such as pneumonia or even malignant tumours in the lungs. It has been suggested that clinicians use machine learning-based lung cancer prediction models to assist them in managing pulmonary nodules detected by chance or screening that are uncertain. These algorithms might be used to help clinicians decide how to treat the nodules. These tools might help individuals make better decisions, reduce the amount of diversity in nodule classification, and cut down on the number of harmless nodules that are investigated further or worked up for no reason. In this article, we will discuss the advantages and disadvantages of the most frequent approaches that have been used to predict lung cancer to date, as well as provide a comprehensive analysis of the most common methods that have been used to forecast lung cancer. We analyse the actions that need to be done and the difficulties that need to be overcome before these strategies can be utilised in clinical settings.

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