**ASSIGNMENT REPORT- 1**

**(*Task : To identify broader thrust area of research*)**

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**Course Code : GEN530**

**Section Number : K21ML**

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**1.1 List of prominent funding agencies (5 Funding Agencies) and the thrust area of research identified by these funding agencies :**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the Funding agencies** | **Thrust area** | **Weblink** |
| **1** | Defence Research and Development Organisation(DRDO) | Bio-Technology (Currently working in LS and BD panel for military purpose) | <https://www.drdo.gov.in/life-sciences-research-board/formats> |
| **2** | Indian Council of Medical Research | Communicable Diseases  (Currently working on Covn-19) | <https://main.icmr.nic.in/thrust/thrust.htm> |
| **3** | Science and Technology Application for rural development | Microelectronics | <https://academicjournals.org/journal/ISABB-JFAS/article-full-text-pdf/48E757244874> |
| **4** | Department of Atomic Energy (DAE) | Radiation Technology  ( For the use of Agriculture and Medicine) | <https://dae.gov.in/node/634> |
| **5** | Ministry of Electronics and Information Technology | New Generation Networks and Communication Technology | <https://www.meity.gov.in/thrust-areas> |

**2.1 List of 5 prominent industries/Companies and the thrust area of research identified by these companies :**

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| --- | --- | --- | --- |
| **S.No.** | **Name of the Industry/Company** | **Thrust area** | **Weblink** |
| **1** | Adnano Technologies | Nano technology (Currently using a polyethylene sheet to fight covid-19) | <https://ad-nanotech.com/about-us/> |
| **2** | NVIDIA Corporation | 3D – Deep Learning (Currently working on developing the natural language processing) | <https://www.nvidia.com/en-us/about-nvidia/> |
| **3** | TATA Power Solar | Solar power Generation (Currently working on a 3MW Solar power plant in Maharashtra) | <https://www.tatapower.com/> |
| **4** | ASM Technologies | Electric Vehicles (Currently working on developing the Driver Assistance System) | <https://www.asmltd.com/electric-vehicle-ev/> |
| **5** | Cipher | Cyber Security (Recently tied up with ICBA for preventing attacks on Regional and Community Banks) | <https://cipher.com/> |

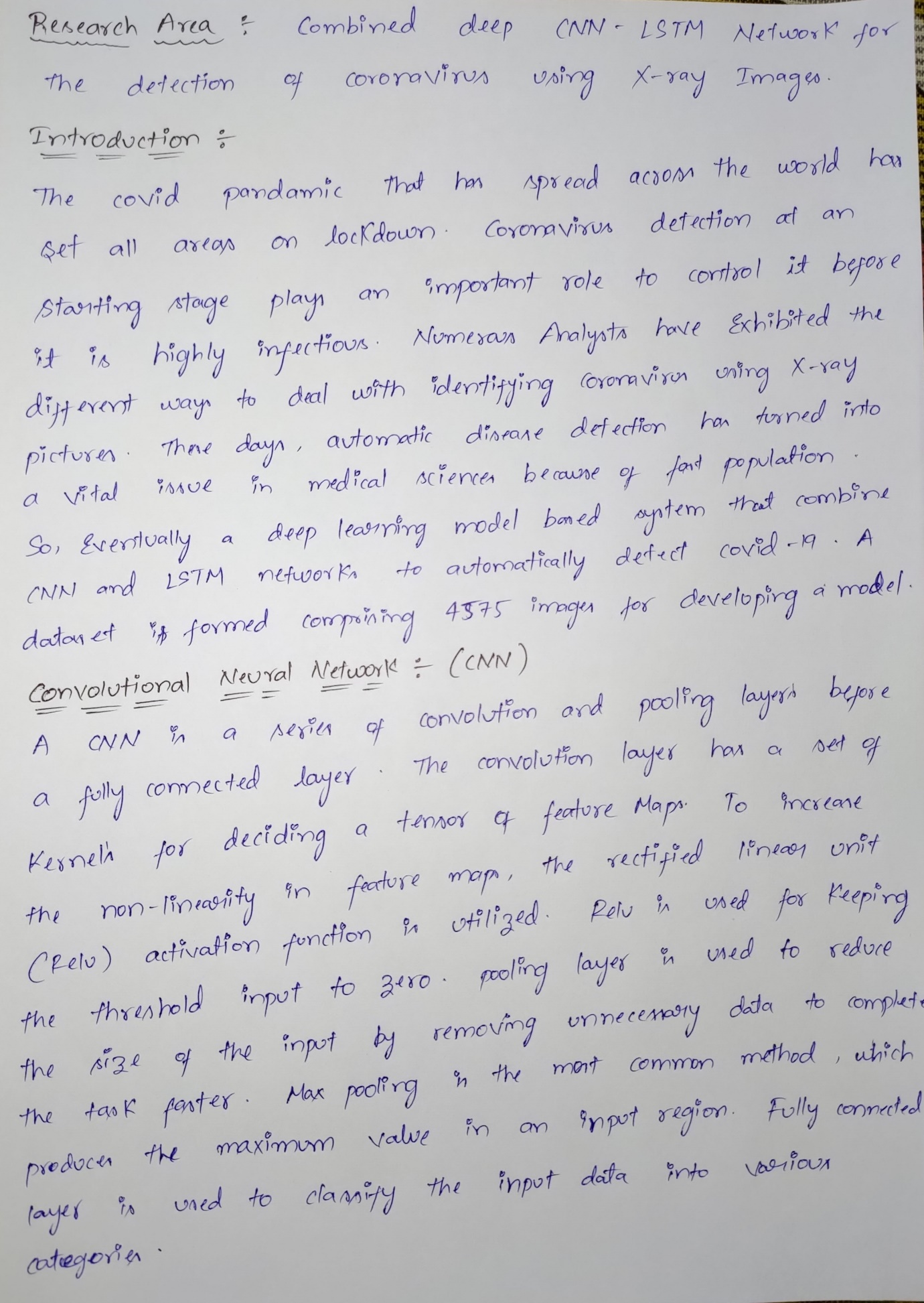
**3.1 List of SCOPUS indexed upcoming conferences and the thrust areas identified by those conferences (10 upcoming Conferences of 2021) :**

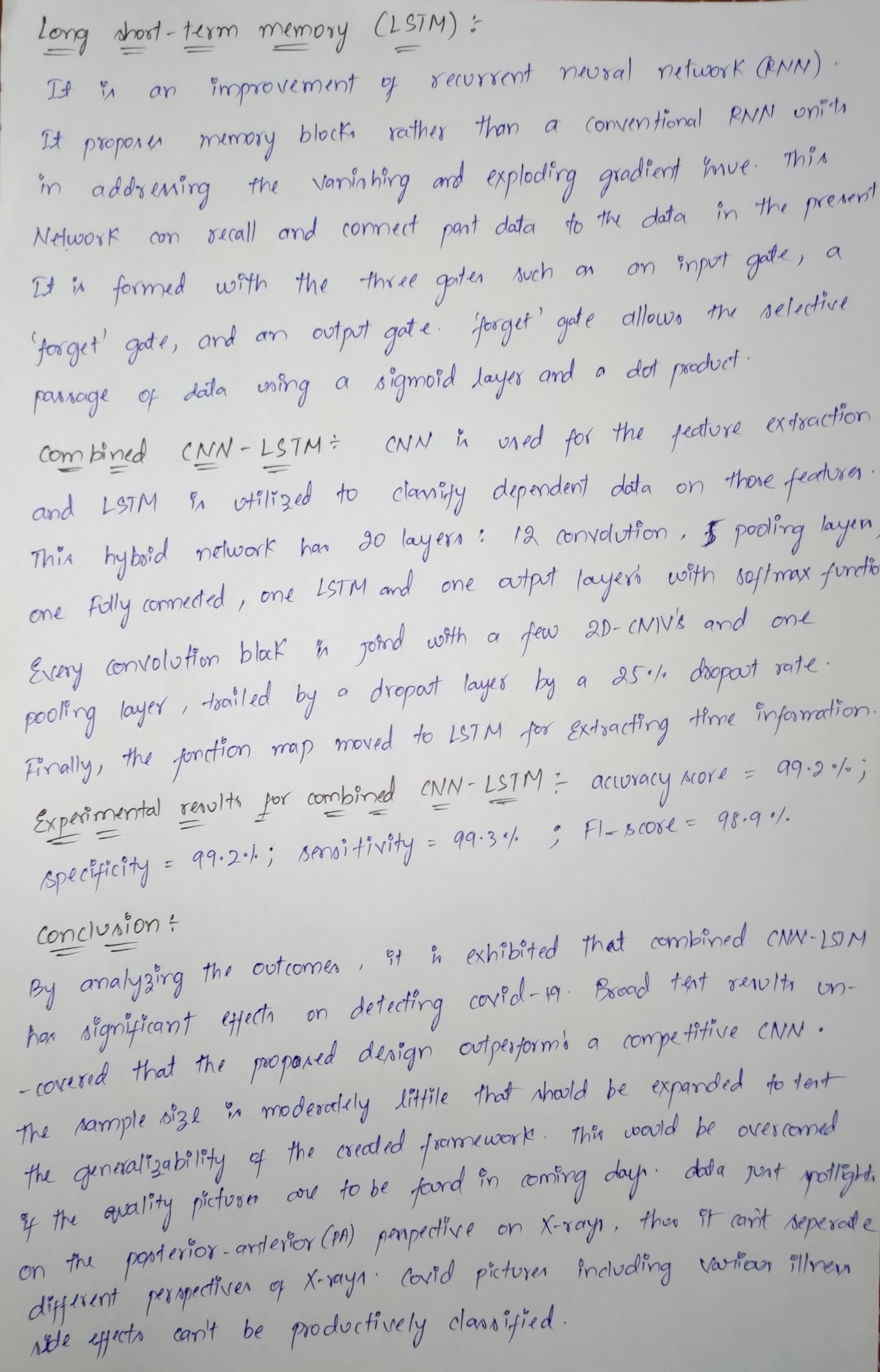
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name of the Conference** | **Venue, and Date** | **Weblink** | **Thrust area** |
| **1** | National Conference on Agriculture and Food Sciences (NCAFS) | Davanagere (India)  And 03/11/2021 | http://nationalconference.org.in /Conference/6292/NCAFS/ | Technological Advancement in Agriculture |
| **2** | National Conference on Communications (NCC) | Coorg (India)  And 16/11/2021 | http://nationalconference.org.in /Conference/6366/NCC/ | Advancement in area of Communication and Signal processing |
| **3** | National Conference on Industrial Civil and Mechanical Engineering (NCICME) | Nashik (India)  And 02/10/2021 | http://nationalconferences.org /Conference/6991/NCICME/ | Development in Concrete Technology and Sustainable materials |
| **4** | International Conference on Big data and Smart Computing (ICBDSC) | Varanasi (India)  And  25/10/2021 | http://academicsconference.com /Conference/17691/ICBDSC/ | Advancement in Autonomous Systems and Robotics |
| **5** | National Conference on Smart Energy Systems (NCSES) | Kodaikanal (India)  And  30/10/2021 | http://nationalconference.org.in /Conference/6275/NCSES/ | Rapid Strides and Advancement in AI Techniques and optimization in power systems |
| **6** | National Conference on Business Management, Economics and Social Science (NCBMESS) | Dharwad (India)  And  11/12/2021 | http://nationalconferences.org /Conference/7399/NCBMESS/ | Cross cultural management and leadership, Globalization, trade and development |
| **7** | International Conference on Latest Research on Corona Virus and its Vaccine (ICRCVV) | Ooty (India)  And  22/12/2021 | http://researchconferences.in /Conference/1381/ICRCVV/ | Development of Vaccine Process of covid-19 and Production |
| **8** | National Conference on recent Advances in Science, Engineering, Technology and Management  (NCRASETM) | Bengaluru (India)  And  5/12/2021 | [http://wrfer.org/ Conference/18178/NCRASETM/](http://wrfer.org/%20Conference/18178/NCRASETM/) | Gathering all the recent Innovations to advance the technology through all streams |
| **9** | International Conference on Aerospace and Aerodynamics (ICAA) | Dehradun (India)  And  02/11/2021 | http://iferp.org /Conference/4395/ICAA/ | Platform to share cutting edge developments on the fields of aerospace and aerodynamics |
| **10** | World Disability and Rehabilitation Conference (WDRC) | Solapur (India)  And  30/09/2021 | http://asar.org.in /Conference/23280/WDRC/ | Advancement in new techniques and horizons that will contribute to advanced research in science |

**4.1 List of 5 Research happening/Case Study/News :**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Article Title** | **Source** | **Additional Information** |
| 1 | Bibliometric analysis related to mathematical research through database dimensions | <https://iopscience.iop.org/article/10.1088/1742-6596/1776/1/012055/meta> | Purpose of this research paper is to conduct bibliometric research in online scientific publications. |
| **2** | Peer to Peer communication between the Autonomous vehicles using virtual private network | <http://eprints.eudl.eu/id/eprint/3863/> | Main purpose of this research is to develop a reliable communication software for the between self driving vehicles. |
| **3** | LitCovid: A database of Coronavirus Research | https://www.tandfonline.com /doi/full/10.1080/02763869.2021.1873639 | Main purpose of this literature is to provide an effective, relevant data and scientifical research updates on coronavirus. |
| **4** | Implementation of Convolutional Neural Network approach for covid-19 disease detection | <https://journals.physiology.org/doi/abs/10.1152/physiolgenomics.00084.2020%40apsselect.2020.7.issue-12> | This CNN is used in Fully Automated Detection of covid-19 disease and it is helpful because we don’t have to extract any diseased tissue from the patients. |
| **5** | Physics-informed Machine Learning: Case Studies for weather and climate modelling | <https://royalsocietypublishing.org/doi/full/10.1098/rsta.2020.0093> | This case study describe about how physics domain knowledge used in ML models to get an more accurate results on weather and climate. |

**5.1 Based on the above reviews finalizing one of the research thrust area with proper justification :**

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