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A one day National Webinar on  
*Role of Artificial-Intelligence in Disability  
Rehabilitation in COVID-19 Pandemic*

*(28th May, 2020)*

Organized by

**Vardhman Mahaveer Open University (VMOU)  
Kota**

**Success in creating AI could be the biggest event in the history of our civilization. But it could also be the last – unless we learn how to avoid the risks**

- Stephen Hawking

The 21<sup>st</sup> century saw human life living in a world where interaction with intelligent machines is a part of everyday life. Radical advancement in the area of artificial intelligence has allowed the development of adaptive machines that can modify its internal parameters to adjust its behavior as expected by the changing environment. Until the mid of twentieth century the brain was mostly viewed as some kind of powerful computer which is known as the 'brain as a computer metaphor' but the field of artificial intelligence has changed dramatically over the last 50 years.

In fact, the human brain has been a mystery for researchers and scientists for a long time. For a long time, humans have made efforts to know how brain

functions and how thinking works and the understanding of how thinking works have been converted into how to construct intelligent machines and replicate the intelligent behavior displayed by many natural systems. The many attempts to synthesize intelligence or higher cognition have resulted in many specialized AI systems that nowadays are at work in specific problem domains, such as knowledge discovery and data mining. The new approach to understand intelligence has led to a paradigm shift that emphasizes fundamental paradigm shift from a computational to an embodied perspective, the kinds of research areas, theoretical and engineering issues and the disciplines involved in AI have also changed substantially.

One field that has profited from this is rehabilitation and prosthetics but in order to implement such a rehabilitation system there needs some mechanisms like a control mechanism that support the person during interaction with the support system & to improve the reliability of prediction made with respect to the subject's intentions. Currently, there are already some robotic systems applied in rehabilitation. The conception of these systems is based on modern, evidence-based therapy approaches, such as repetitive task-orientated bilateral and distal training as well as assist-as-needed therapy. Automated rehabilitation is one of the rehabilitation measures based on Artificial Intelligence which has gained momentum in physical therapy. Within the area of rehabilitation automated machines are more likely to be used. They replace manual procedures with autonomous exercises.

COVID-19 pandemic has created the darkest moments in our life. In fact the entire world has changed. There will be a remarkable difference between the pre-corona world and the post-corona world. Steps taken to prevent COVID-19 pandemic have greatly affected our lifestyle. According to some experts even after lockdown, one needs to follow social distancing for a long time.

The COVID-19 pandemic has affected the entire humanity but persons with disabilities are more valuable in this present COVID-19 crisis. Many persons with disabilities need to get support from their escort but social distancing rules made them not get the services of the escorts. On the other hand many of the persons with disabilities use several medical as well as

rehabilitation devices, the lockdown measures taken due to COVID-19 have restricted it to get it repaired their device, aids, and appliances.

The present National Webinar has been structured around the Role of Artificial Intelligence, in the rehabilitation of persons with disabilities in COVID-19 crisis with the following objectives:

**Objectives:** The objectives of the present webinar are as follows-

1. To acquaint participants issues and challenges faced by Persons with Disabilities due to the CORONA pandemic and to make them aware of the advancement in the use of AI systems in disability rehabilitation.
2. To explore the possible role of Artificial Intelligence in the rehabilitation of persons with intellectual and developmental disabilities with reference to COVID-19 situation.
3. To explore the possible role of Artificial Intelligence in the rehabilitation of persons with sensory disabilities with reference to COVID-19 situation.
4. To explore the possible role of Artificial Intelligence in the rehabilitation of persons with Locomotor disabilities with reference to COVID-19 situation.

**Platform:** The webinar will be hosted on the Cisco Webex Meetings. General guidelines and the link of the webinar will be shared with participants upon their registration for the webinar.

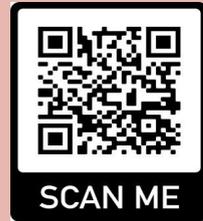
**Who can attend:** Research Scholars, Teachers, Teacher Educators of universities and colleges working in / interested in Artificial Intelligence and Disability Rehabilitation.

**Participation:** Participation in the webinar is free. The seats are limited to 70 participants offered on a first come first serve basis for which a participant needs to register using a given link of google form. The form will be open until 70 participants are registered or till 10 PM on 27th May 2020, whichever is earlier.

**How to register and attend the conference:** The participants need to register by clicking on the link or scan the QR code given below. To join the

conference the participants need to click on the link or scan the QR code provided below:

1. **Registration Link:** <https://forms.gle/btpoCG87fNCoNbT39>



2. **Conference Link:** <https://meetingsapac24.webex.com/meetingsapac24/j.php?MTID=m0d41be61fbc621d6fb010e731c154673>



**Certification:** Digitally signed e-certificate will be provided to all participants who will attend all sessions of the webinar and submit the assessment via e-mail. Please note no certificate would be made available in hard copy.

**For any query/question kindly contact-**

*Organizing Secretaries:-*

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|----|--------------------|--|------------|
| 1. | Dr. Keerti Singh   | <a href="mailto:keertisingh@vmou.ac.in">keertisingh@vmou.ac.in</a> | 9413244031 |
| 2. | Dr. Akhilesh Kumar | <a href="mailto:akumar@vmou.ac.in">akumar@vmou.ac.in</a>           | 8078604846 |
| 3. | Sh. Neeraj Arora   | <a href="mailto:narora@vmou.ac.in">narora@vmou.ac.in</a>           | 9571077835 |



## The Schedule

28th May, 2020

Moderators: Dr. Akhilesh Kumar & Dr. Keerti Singh

(Kindly log in to the meeting via the given link by 10.15 AM. After 10.15 AM the Admin will not allow you to the webinar.)

Sl.	Time	Activity	Resource Person
	10.00 AM to 10.30 AM	System Testing and Permission to Participants to log in.	
1.	10.30 AM to 10.40 PM	Welcome note	Sh. Neeraj Arora
2.	10.40 AM to 11.00 AM	Address of Special Guest	Dr. S.K. Prasad Deputy Commissioner of Disabilities, Govt. of India
3.	11.00 AM to 11.15 AM	Inaugural Presidential Address	Prof. (Dr.) R. L. Godaraa Hon'ble Vice-Chancellor, Vardhman Mahaveer Open University (VMOU), Kota
<b>Technical Sessions</b>			
4.	11.15 AM to 11.20 AM	About the programme	Dr. Akhilesh Kumar
5.	11.20 AM to 12.00 PM	Impact of Artificial Intelligence in COVID-19	Dr. Rahul Kumar Assistant Prof (Computer Science) NIFTEM, Sonapat, Haryana
6.	12.00 PM to 12.30 PM	Artificial Intelligence and Rehabilitation of Persons with Intellectual Disability	Shri Ganesh Sereger Principal, Special Education Center, NIEPID, Secunderabad
7.	12.30 PM to 01.00 PM	Rehabilitation of Persons with Sensory Disabilities and Artificial intelligence	Dr. Pankaj Shah Assistant Professor, NIEPVD, Dehradun
8.	1.00 PM to 1.20 PM	Issues and Challenges faced by PwD's in Corona Pandemic and the Artificial Intelligence	Dr. Hemant Singh Keshwal Assistant professor NIEPID, Regional Center, Delhi
9.	1.20 PM to 1.30 PM	Vote of Thanks	Dr. Keerti Singh
10.	1.30 PM to 2.30 PM	<b>Lunch Break</b>	
11.	2.30 PM to 5.00 PM	Assignment and Discussion (Asynchronous Mode) Using whatsapp & Google Form	All the participants

### Note:

1. Certificates will be awarded to only those participants who successfully complete the assignment.
2. The link of assignment will be open till 28 May 2020, at 5.00PM.
3. Only e-certificates will be provided to successful participants which may take up to one week.
4. For more information visit <https://www.vmoou.ac.in/content/164189677>

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**(28th May, 2020)**

Patron

**Prof.(Dr.) R.L.Godaraa**

Convener

**Prof. (Dr.) P.K. Sharma**

### **The Organizing Committee**

Prof. (Dr.) H.B. Nandwana

Prof. (Dr.) Ashok Sharma

Prof. (Dr.) B. Arun Kumar

Dr. Anil Kumar Jain

Dr. Subodh Kumar

Dr. Rakesh Sharma

Dr. Anuradha Dubey

Dr. Kshamta Chaudhary

Dr. Anurodh Godha

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Dr. Patanjali Mishra

Dr. Alok Chauhan

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Dr. Surender Kulshreshta

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