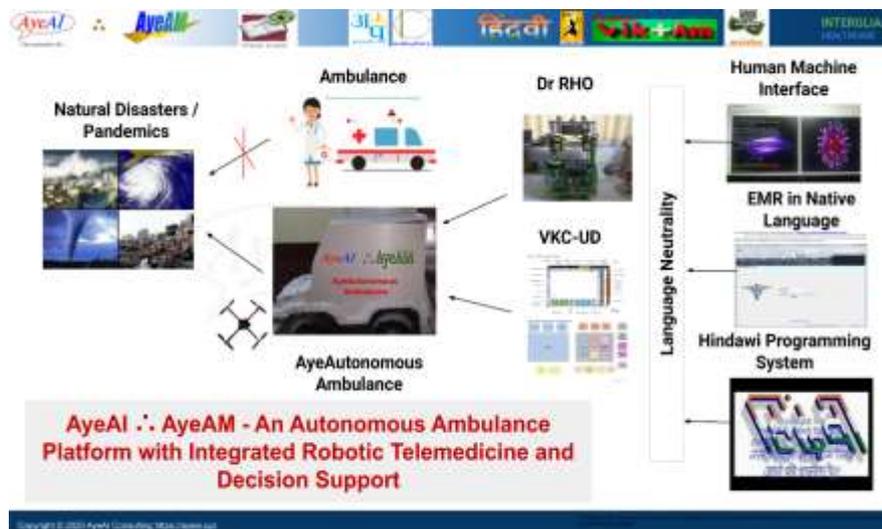


Name:
AyeAI Consulting

Photo:



Awards:
Technology Start-up

Brief Bio:

AyeAI is a K-17 Cognitive Edutech and R&D organization. We research core Artificial General Intelligence technologies like neural accelerators, robotics, blockchain and quantum computing. This research supports rural digitalization and cognitization projects under the Project VIKRAM initiative towards inclusive AI, with innovations in healthcare and education for the next billion users. Our patent pending innovations like the AyeAM Autonomous Ambulance, Dr Rho - Medical Telepresence Robot, and the Indian languages based programming platform Hindawi Programming System have been recognized globally. Some of the recent recognitions include EnT Innovation Awards 2020 - Finalist, by the IET, London UK, and the IEEE India Council Award 2020 for Technology Startup. The past accolades include CSI YITPA National Champion, FOSS India Award Top Project, Sarai CSDS FLOSS Fellowship, Intel India Embedded Challenge Finalist, DataQuest Innovator of the month, Nokia Growth Economy Venture Challenge Top 5, and Stockholm Challenge Finalist. Our courses are built around these research domains giving learners globally relevant experience in innovative capstone projects that make them industry ready. Learners with medical and allied clinical qualifications are engaged with the AyeVH virtual hospital initiative for rural telemedicine. This enables deep proliferation of access to AI augmented healthcare in remote areas. Our organization stands by its ethos of inclusive democratization of technology and a sustainable future for all of humanity through the advocacy of FOSS (open source) and accessible research.

Achievement for which the award was given:

Provisioning healthcare safely and optimally during pandemics and catastrophes is nearly impossible. This needs to be done without endangering the safety of healthcare professionals. AyeAI Autonomous Ambulance (AyeAM) allows remote physicians to treat patients while ensuring health workers' safety and optimizes resource utilization. AyeAM is an integrated ambulatory platform on an autonomous vehicle base. It offers bespoke solutions for optimal delivery of digital health to remote locations and inaccessible areas during natural disasters and epidemics. It is being built on open source technologies and is being developed by a consortium led by AyeAI. AyeAM integrates with medical telepresence robot Dr Rho and uses standard open frameworks like Tensorflow and Caffe for AI control system models. To ensure community participation the development of the AI models, which include Machine Learning and Deep Learning along with Genetic Algorithms, Fuzzy Logic and bespoke graph algorithms like PEDLER for speech, vision and analytics, have been localized using Hindawi Programming System (HPS) so that non English literate population can locally customize and maintain the systems. The back end system at hospitals, where the ambulance is controlled from and where the remote physicians sit, is provided with an immersive "experience" room. The augmented reality gives an in-clinic treatment experience to doctors. This is enabled by

our HMI innovations in medical devices like the AuscultAid remote stethoscope positioning solution. The back end is built on open source electronic health record platforms. Multiple options such as OpenEMR and VistA from OSHERA. It includes DICOM integration for remote image analysis. It has a modular design with HL7 FHIR to enable inorganic integration. The highlight of this system is our innovative Clinical Decision Support System (CDSS). For easy deployment, the entire deployment process is automated using AyeVDI and AyeUI tools for containers and virtualization. The platform supports NDHB interfaces. AyeAM is a research system and investment driven trials are needed prior to deployment. The system is available to academic and research institutions. Its components can be independently utilized in pandemic response solutions. AyeAI offers AyeAM as an upskilling project for young professionals, including medical and engineering students. This is being carried out under the aegis of Project VIKRAM.