Two-Day Online National Workshop on "Vision Beyond Sight: Clinical and AI Solutions for Glaucoma"

UNDER SSR ACTIVITY FUNDED BY ANRF F.NO: CRG/2023/005474

THEME:
LEVERAGING AI SOLUTIONS FOR BETTER EYE CARE

20th to 21st Dec 2024

Jointly organized by

CENTRE FOR MEDICAL IMAGING STUDIES(CMIS), DEPARTMENT OF ECE, GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING (A) VISAKHAPATNAM, ANDHRA PRADESH

SIMADRI SURYA EYE HOSPITAL SUSHEELA PUBLIC CHARITABLE TRUST NABARANGAPUR, ODISHA

Registration link: https://forms.gle/arobgsbFGuT6jjfdA

LAST DATE FOR REGISTRATION : 10th DECEMBER 2024

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A):-

Gayatri Vidya Parishad (GVP) has been established in the year 1988 as an educational trust by a group of eminent educationists, academicians & industrialists to empower the young generation through high quality technical education. The Engineering education by GVP society was first originated by establishing Gayatri Vidya Parishad College of Engineering (GVPCE) in the year 1996 with the divine blessings of Sadguru Sri. K. Sivananda Murthy Garu. The institute has flourished in various facets of Academics and Research by achieving the pinnacle of success. This institute is offering 10 B.Tech., 5 M.Tech., and one MCA programme under the affiliating university JNTUK, Kakinada. The college has brought in many initiatives for the benefit of students with autonomous status granted by UGC in 2009. The status of autonomy is further extended by UGC up to 2025. The institute has been reaccredited second time by NAAC with A^{++} grade with CGPA of 3.52/4.0. Seven B.Tech. programs are accredited by NBA at least twice. The institute received funds to the tune of Rs.5 Crores under Technical Education Quality Improvement Program (TEQIP), S.C-1.2. The college received Rs. 12 Crores from funding organizations AICTE / DST / NBHM / ARB etc. towards 45 R&D projects. The institute encourages collaborative learning between industry and academia as a means of reinforcing its curriculum with practical and real world experiences.

SIMADRI SURYA EYE HOSPITAL, NABARANGAPUR, ODISHA:-

Simadri Surya Eye Hospital (SSEH) is operated & managed by Susheela Public Charitable Trust located at Nabarangpur town and a municipality in Nabarangapur district in the Indian state of Odisha. SSEH received NABH accreditation within Six months of time. The core value of the eye hospital is to provide "service to the poor, marginalized, helpless & downtrodden people suffering with the eye-related disorder" which is the real service to God and the highest form of practical holiness". Simadri Surya Eye Hospital is committed to providing exceptional services with innovative technology and safety measures by adhering to the stringent guidelines of the healthcare body. It is well furnished with advanced operation theatres equipped with modern equipment to provide immediate treatment to the tribal people of neighbouring Odisha and Chhattisgarh state. The hospital primarily focuses on providing its enduring effort to the 13 primitive tribal communities and individuals living in the Below Poverty Line (BPL) category people in and around the areas of Nabarangpur, Koraput, Bhawanipatna, Jagdalpur, and other adjacent 11 districts of Odisha & Chhattisgarh state. The hospital is managed by qualified ophthalmologists having diverse specializations to tackle multiple disorders associated with eye.With a strong commitment to serve, the hospital ensures 80% of its treatments are free for the poor, while others receive care at subsidized rates. This initiative not only brings specialized care closer to home but also raises awareness and accessibility, lighting the path to a brighter future for many.

ORGANIZING COMMITTEE

Chief Patron

Prof. Dr. Ing. P. S. Rao, President, GVP

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Prof. Dr. Birendra Biswal, Dean (R&D), GVPCE (A)

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Dr. N. Deepika Rani, Professor & H.O.D, GVPCE (A)
Dr. Virender Sachdeva, Senior Opthalmologist, LVPEI
Dr. A. Narasimha Rao, Assistant Professor, GVPIHCMT

ABOUT WORKSHOP:-

Glaucoma is a progressive eye disease that can lead to irreversible vision loss if not detected and treated early. This workshop aims to explore the innovative application of Artificial Intelligence (AI) in predicting the onset of glaucoma, emphasizing the potential for improved patient outcomes through early intervention. The application of artificial intelligence (AI) in predicting glaucoma has garnered substantial interest in clinical and medical research. This workshop aims to explore the latest advancements, methodologies, and findings from recent studies, as well as the implications for clinical practice and patient care.

This workshop is designed to facilitate the participants to gain knowledge in significance of continuous research and collaboration in harnessing AI for improved outcomes in glaucoma management. In this workshop, the clinical aspects and the associated problems faced by the expert doctors in diagnosing the patients shall be discussed. Further, a series of talks on the state of the art AI architectures and its optimization techniques will be delivered by potential speakers from reputed institutions. On this ground, GVPCE and SSEH planned jointly to organize this workshop under Social Scientific Responsibility (SSR) activity sponsored by Anushandhan National Research Foundation (ANRF) (formerly SERB) by attracting research scholars, students, faculty and industry professionals to discuss various cutting edge technologies in the field of successful case studies where AI systems have been integrated into clinical workflows, showcasing improved patient management and outcomes using AI and making this series workshops one of the most premiere & admired workshop of the year 2024.

SESSION OBJECTIVES

- To introduce the clinical aspects of medical images for better understanding.
- To provide a comprehensive overview of glaucoma and it's types, risk factors etc.
- To describe and demonstrate image processing, and clinical and medical techniques using artificial intelligence to predict Glaucoma.
- To explain the implementation and optimization techniques of an AI model.
- To demonstrate various libraries in python platform for implementation of a robust AI model.

LEARNINGS BY THE PARTICIPANTS AT THE END OF THE WORKSHOP:

- Participant will understand various libraries of deep learning in Python platform.
- Participant will be able to analyze the ophthalmologic images and process them to detect Glaucoma.
- Participant will be able to process the ophthalmologic images using different AI techniques.
- Participant will be able to apply parameter optimization techniques while designing an accurate AI model.
- Participant will gain an intuitive understanding of the concepts and tools to build the model for any learning problem.

WHO CAN ATTEND :

- Students, Research Scholars, Teaching Faculty, Industry experts

ONLINE PLATFORM:

- Google meet

The e-certificates will be jointly issued by both Gayatri Vidya Parishad College of Engineering, Visakhapatnam, Andhra Pradesh and Simadri Surya Eye Hospital, Nabarangapur, Odisha. The certificates will be sent to the registered mail ids to the delegates after successful participation in the workshop.

REGISTRATION FEE:

- No Registration Fee

RESOURCE PERSONS

Prof. Dr. Birendra Biswal, Dean (R&D), GVPCE (A)
Dr. Deepak Ranjan Nayak, Assistant Professor, MNIT Jaipur
Dr. Sukesh G, Senior Ophthalmologist, SSEH
Dr. Senthil Kumari, Scientist, Ocular Pharmacology, Aravind Medical Research Foundation
Miss. Geetha Pavani P, Senior Research Associate, SSEH

COORDINATORS:

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