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NAGESH KARAJAGI ORCHID COLLEGE OF ENGINEERING & TECHNOLOGY, SOLAPUR
An Autonomous Institute
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A+ NAAC (With CGPA 3.32)

Dr. M. B. Patil
H.O.D of AI&DS
N K Orchid College of Engineering and Technology
Solapur, Maharashtra

Date:

To,
Dr. R. S. Deshpande,
Ramkrishna Hospital,
Solapur-413001

Subject: Request for Permission to Conduct a Survey for the Project "MatriCare AI – AI based Prediction of Pregnancy-related Complications during Labour"

Respected Sir/Madam,
We, the students of N. K. Orchid College of Engineering and Technology, Solapur, from the Department of Artificial Intelligence and Data Science, seek your kind permission to conduct a survey at your esteemed hospital for our academic project titled **"MartriCare AI - AI based Prediction of Pregnancy-related Complications."**

The project aims to develop a deep learning system to predict potential delivery-related complications (such as hemorrhage, eclampsia, sepsis, and fetal distress) during the intrapartum period (36–40 hours of labour monitoring), thereby assisting healthcare professionals in early risk identification and improving outcomes.

For this purpose, we intend to:

1. Collect anonymized, non-confidential health data (vital signs, labour progress indicators, outcomes) for research.
2. Interact with healthcare professionals for domain-specific insights.
3. Conduct limited user testing of the system within hospital premises with due approval.

All activities will strictly follow ethical standards and data protection guidelines, ensuring complete confidentiality. We are confident that this collaboration will benefit both academic research and hospital efficiency, and we look forward to your favourable response.

Project Team: Varsha Devdas, Sakshi Bhumkar, Aditya Kamble, Md. Zaid Sutar. Under the guidance of **Prof. G.N. Chanderki** who is mentoring and supervising our project work.

Thank you for considering our request.

Yours faithfully,
Department of Artificial Intelligence and Data Science
N. K. Orchid College of Engineering and Technology,
Solapur, Maharashtra.