

Automated Maternity and Infant Wellbeing System

R.I. Wettasinghe, P.B. Perera, G.R.I. Aponsu, A.V.S.K. Jayathilake, M.P.A.W. Gamage[†] and K.P.D.H. De Silva

Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka
[†]anjalie.g@sliit.lk

Abstract: Maternity and child health is one of the most important areas in the health care system in Sri Lanka. However it is noted that there are no functional automated systems in Sri Lanka for the above purpose and this research aims to provide a better solution to share knowledge among the mothers and the midwives to improve the wellbeing of the infants and the mothers. Automated Maternity and Infant Wellbeing System (AMIWS) is a web based knowledge sharing system that would link doctors, mothers and midwives to support effective information sharing and capture substantially varying experiences among them during the prenatal and postnatal stages of motherhood. The system specifically monitors an individual mother and infant as they progress through all the key stages of pregnancy and childhood while providing customized facilities to reflect their own progress in maternity and child nurturing. Further the system provides intelligence based suggestions on key areas involved in pregnancy and childhood. System is designed and developed using ASP.NET 3.5 using C#.NET 3.5 as the backend programming language, Microsoft Visual Studio.NET 2010 as the programming environment, SQL Server 2008 as the platform to design and implement a fully-functional database. System further provides a Knowledge sharing functionality to provide certain factors where it's necessary for the mother to acquire expertise knowledge from doctors and mid wives. This also includes a component where the users can predict certain information such as the growth of a child, possible diseases, meal plans etc. This was done using neural network with the help of Sigmoid function and Resilient Propagation for training. AMIWS is expected to be implemented in Sri Lanka to provide better service for the mothers and infants in the rural area through the midwives by providing better information on time.