Healthcare: Drugs

Development and field test of AI – guided software for detection cervix cancer using Pap smear images - PAPSCANNER

APPLICATION

An automated cervical dysplasia scanner for early detection and diagnosis. Laterr on the platform technology can be used to detect other types of cancer

COMPANY NAME	TECHNOLOGY READINESS LEVEL (TRL)	INTELLECTUAL PROPERTY
RogNidaan Technologies Pvt Ltd	**TRL: 3 (Software(s)/Systems developed and tested)**	**Indian patent app No:** 202231028831

FOUNDERS' NAME

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PROBLEM ADDRESSED

Cervical cancer is one of the most prevalent cancers among women in North-East India. We construe several reasons, among many, for this high incidence: i) low awareness about the early diagnostic techniques, ii) lack of easy access to the nearest clinic or pathology laboratory, iii) apathy to spend the substantial cost involved for only a screening test, iv) unwillingness for repeated visits to the center as the diagnosis cannot be given on the same day and lastly v) lack of automated software available. Healthcare costs will need to be reduced if we are to treat more people and overcome the reasons mentioned above. Further, accurate and timely diagnosis is the major strategy, as well as a challenge for lowering the incidence of the disease
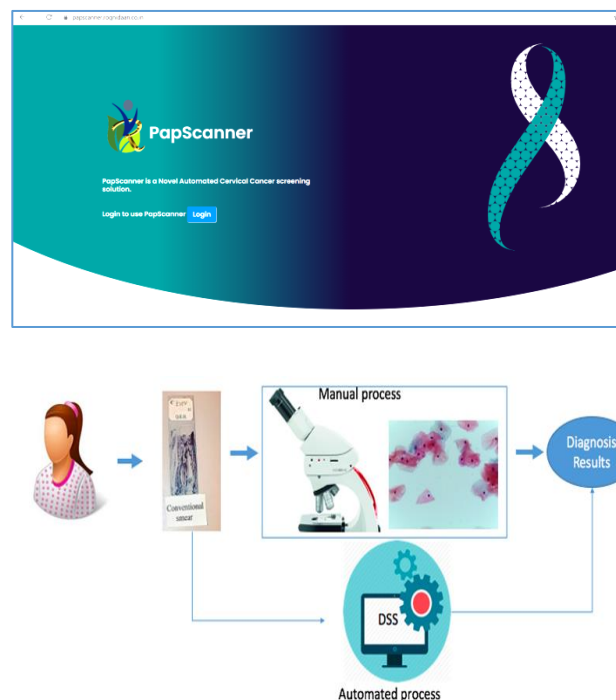
ABOUT THE TECHNOLOGY

An automated screening solution for early detection of cervical dysplasia from Pap smear images, which we coined "PapScanner". This software device is robust, accurate, and low-cost solution that can be operated even by a simple technician or laboratory assistant. The service of the product is remotely accessible, which makes it more efficient. The algorithm for product development mainly uses current trends of Artificial Intelligence techniques, namely machine learning and deep learning. This unique solution can be used as an early cervical cancer diagnosis test in hospitals, used for regular preventive health check-ups, and large-scale screening in rural and semi-urban areas.

PROCESS FLOW

USP

- Automated, fast and user friendly.
- No high-end infrastructure required.
- Reduces the workload of the pathologist
- Cost effective screening tool
- Easy and secure access from remote locations
- Offers binary (suitable for Mass screening) as well as Multi-class classification (for Specialized observation)
- Offers conventional as well as Liquid-based Cytology image analysis

FUNDS RAISED/ACHIEVEMENTS

BIRAC BIG NE for INR 25 Lakhs

END USERS/CUSTOMERS

Pathologist of Hospitals and Diagnostic Centres