

Funds boost for gender-safe ultrasound tech

Subhro Niyogi | TNN

Kolkata: A B.Tech from IIT-Kharagpur, who hit upon an ingenious way of masking gender in foetal ultrasound scans, has won seed funding to develop the technology that can help end the curse of female foeticide in India.

Abhishek Biswas, who is now doing his MBA at IIM-Calcutta, identified ultrasound machines as primary facilitators in female foeticide and began working on ways to censor the image so that even doctors and lab technicians cannot identify the sex of a foetus. He has named his invention 'Ultrasafe Ultrasound'. While ultrasound machines cost \$10,000-30,000 (Rs 6.2-18.5 lakh), the cost of installing the masking software is a mere \$500 (Rs 30,000).

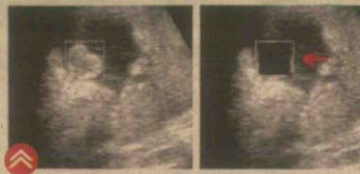
"Sex determination is banned and there are stiff penalties for it. Yet, 7,000 female foetuses are selectively eliminated in India every day. Unscrupulous doctors and technicians risk sanction and jail term to comply with patients' request against a fat payment. Around 95% pre-natal sex detection occurs via ultrasound machines. Hence, the solution is to make gender detection impossible during ultrasound. Doctors cannot reveal what they cannot see," he explained.

The idea struck Biswas in June 2012 when he was an intern at Persistent Systems, Pune. A series of newspaper articles

FOETUS SHIELD

IF ULTRASAFE ULTRASOUND REACHES THE MARKET...

- ▶ Female foeticide will end. Gender ratio will improve
- ▶ Govt no longer has to regulate sale of ultrasound machines. This will boost business in India, where it is currently worth \$110 million compared to China's \$1 billion
- ▶ Govt can save the crores it spends on curbing sex determination tests
- ▶ Portable ultrasound machines can be used, hugely benefiting rural areas. It was banned in Jan 2012 to prevent misuse
- ▶ Doctors no longer have to sign 30 pages of documents before every USG



THE TECHNOLOGY | Ultrasafe Ultrasound uses technology similar to the smile detector mode in digital cameras. It will identify the genitals and blur out the image before it is projected on the monitor. If the doctor/technician cannot see the genitals, they cannot reveal the gender

THE WHIZ TEAM

Sonya Davey, CEO, Global Health, University of Pennsylvania



Abhishek Biswas, COO, systems engineering, IIT

Samir Devalaraja, CFO, healthcare markets & finance, University of Pennsylvania

Haris Godil, CTO, electrical engineering, University of Maryland

on female foeticide in Gujarat set him thinking. His solution was simple: blur out foetal genitals before the image is projected on the monitor. On his return to Kharag-

pur that September, he discussed the idea with a professor and received some support but not enough. When Sonya Davey, a student at University of Pennsylvania,

heard about the project in early 2013, she was super excited.

The duo had got acquainted online when Biswas was interning with Persistent's US office. They roped in her friend Samir Devalaraja, also studying at Penn Univ. The trio worked out a business strategy that went on to win the Dell Social Innovation Challenge, emerged runner's up in the Dell Empowering Women Challenge and won the best social entrepreneurship award at the Pan IIT Global Conference.

With the limelight, help began to pour in. Haris Godil, a PhD student at University of Maryland, helped develop the software simulation. Biswas teamed up with IIM-Calcutta batchmate Aditya Pangtey to participate in the Tata Social Enterprise Challenge and came second runner's up. But more importantly, it was the only idea to receive on-the-spot seed funding of Rs 5 lakh in addition to Rs 1.5 lakh from Tatas.

"The money will help develop the technology and put it on the market in 16-18 months. It was patented in the US in October 2014 and is patent-protected in India, China and the UK," said Biswas. At present, the software is being developed in Cambridge Imaging Lab. "The biggest challenge is getting access to ultrasound images due to privacy issues. Fairfax Hospital in US was the first to share its images. Now, we are gradually finding support from others," he added.