

EXCLUSIVE

# A Dynamic Forensic Woman Scientist Counters Hi-Tech Crimes

by Jyoti Pathak

**Dr. Rukmani Krishnamurthy** is a dynamic woman who has achieved the top position in Forensic Science, a field normally women dare not venture. She is well known for her tough stand in scientific matters in Courts, at crime scene and during Government meetings. Initially when she joined this field her male colleagues would taunt her "What can a lady can do in Forensic Science field?". Oblivious to these taunts, her spirits were very high and she decided to prove herself and ultimately made it to the top positions at both National and International levels.



**A** simple girl from a middle class family, Dr Krishnamurthy did her M.Sc from Institute of Science, Nagpur. while Ph.D and MBA from Mumbai. During her tenure, she brought about radical changes in The Directorate of Forensic Science Laboratory, Maharashtra by modernizing six world class FSL and creating two new Regional labs at Nasik in 2004, and Amravati in 2008. Her legacy for Mumbai is the quick makeover of the state forensic laboratory in Kalina from a dusty government building to a Rs 90-crore state-of-the-art swanky Institute. She has transformed the ordinary laboratory to a world class lab. She established 21 Mobile Forensic Labs at district level for better Crime Scene Management.

She has established new techniques of crime investigation like DNA Test, Cyber Forensic Test, Speaker Identification & Tape Authentication Test, Lie Detection Tests, Narco-Analysis, Brain Signature Profiling, and Forensic Clinical Toxicology, to counter the latest scene of Techno-Crimes in Mumbai.

She has been the member of (a) Forensic Science Advisory Committee, Ministry of Home Affairs, New Delhi (b) Union Home Secretary's Committee on Development of Forensic Science Services in India. (c) Panel of External Expert Review on Analytical Chemistry Division, BARC, Govt. of India, (d) Expert member for the National level Procedural Manual for Explosives, Narcotics Drugs, Petroleum Products, Toxicology etc.



During her stint as the FSL Director, Dr Krishnamurthy helped crack many high-profile cases that included the Telgi-Stamp Scam, Aditi Sharma murder, Pramod Mahajan murder case, Dr. Mahajan case, Pune and Nagpur Naxalite murder case. The Alistair Pereira hit and run case, was reopened because of FSL alcohol report, Scarlett murder case at Goa, Kingfisher Airline Scam, VSNL corporate espionage case, Voice Analysis in cases involving gangsters like Chhota Shakeel, Ravi Pujari and the 7/11 serial blasts in local trains were some of the cases in which FSL played an important role. Investigation of the 1993 blasts is however, closest to her heart. All investigations be it confirmation of use of RDX in the blasts or DNA tests, conducted on unidentified bodies, the forensic analysis done by the lab was found to be at par with Inter-Pol. Dr Krishnamurthy is known for her exemplary work even in the Malegaon blasts where she supervised collection of evidence personally.

Forensic scientist Dr Rukmani Krishnamurthy has many laurels

to rest on. She led the forensic team which helped crack the 1993 blasts case, won a United Nations fellowship, bagged prestigious awards like Award for Meritorious Services in Forensic Science by Union Home Minister (1998), Forensic Science Excellence Award for Best Director of Forensic Science Laboratory by Ministry of Home Affairs, New Delhi.

There is no stopping for people like Dr. Rukmani Krishnamurthy, she has continued to share her years of experience with dedication to serve the society even after her retirement. Her dream of imparting Forensic Education and Services to individuals, corporates etc. still continues. She has written books like "Introduction to Forensic Science in Crime Investigation with emphasis on Crime Scene Management" and Forensic Biology. She has more than 100 research papers in National and International Journals to her credit.

Many educational programs have been prepared under her technical guidance as Technical Advisor, Institute of Forensic

Science to prepare the next generation of Forensic Science practitioners. Programmes like B.Sc in Forensic Science, Diploma courses in Forensic Science & related Law, Digital & Cyber Forensics & related Law are some of the courses that have been initiated by Dept. of Technical Education, Govt of Maharashtra under her guidance. With great job opportunities, Forensic Science is a common platform where Science, Law and Technology merge. She aims for a day when Preventive Forensic Science will be taught at school level.

Currently the Law Enforcement agencies of Maharashtra and India require curriculum in Forensic

Science, which is mandatory for the success of the judicial system. She has been the coordinator for the Maharashtra Judicial Academy and formulated orientation courses in Forensic Science for the District and Session court judges of Maharashtra for the first time in the country.

Dr. Krishnamurthy has travelled to various countries like US, UK France, Singapore, and Hong Kong and has brought with her the knowledge of the best practices in Forensic Science. She has been invited to deliver lectures at various National and International Conferences even Post Retirement not only to spread the efforts of India in the field of Forensic Science but also

to bring in new technology to the country for a crime free society.

She was invited as a speaker and Guest of Honour at "International Conference on Chemistry for Mankind & Innovative Ideas in Life Sciences" at Nagpur in Feb,2011. The conference was organized by Institute of Science, Nagpur, Govt. of Maharashtra and Nagpur University where she strongly reinforced the role of Chemistry, its application and combination of Bio-Chemistry in Forensic and Crime Investigation at the Conference.

At another Conference, organized by BARC, Govt of India, at Visakhapatnam in



**1993 Blast investigation.**



**26/11/2008 -Blast investigation at Taj Hotel.**



**2006 train Serial Blast Investigation.**



**Inauguration of the Institute of Forensic Science, Mumbai.**



Feb.2011 on Nuclear & Radiochemistry she emphasised on the need and significant role of Nuclear and Radiochemistry in the Field of Forensic Science.

Her lecture on the "Use of Forensic Science for common man and society" at the Science day celebration organized by the Indian Women Scientist Association in Mar 2011 was an eye-opener not only for the women scientists of India but also male scientists. It made them realize the significance of Forensic Science in the safety, security and upliftment of the community at large and the emergence of women in a big way, in this rare field of Science .

At the "International Conference on Forensic Nanotechnology, 2011 at Ahmedabad, she addressed 400 delegates from leading organizations across 13 countries.

There is an urgent need to create a centre of excellence with various facilities pertaining to the field of Forensic services to fulfill the need of common man, Corporate Organizations,

Banks, Teaching Institutes, Judicial Systems, Police, Government Organization etc. to tackle various crimes without Police intervention.

To fulfill this need Helik Advisory Ltd, an organization in Forensic and Allied sciences, spearheaded by Dr. Rukmani Krishnamurthy has been set up . Helik functions under the leadership of renowned Forensic Scientists and Quality experts who are engrossed in developing new technologies. It will provide a common platform to bring out new technologies through transfer of knowledge sharing with world renowned professionals of Global Universities. Helik Advisory Ltd is working aggressively towards both Detection and Prevention technology for the benefit of the nation. Preventive Forensics will educate urban and rural people to safeguard themselves scientifically and legally against any untoward incident. Preventive Forensic will also safeguard Corporate Organizations, Banks, Teaching Institute Hospitals, Government Office etc from Hi-Tech crimes. Competitive standards in the field of Forensic

and Allied science and services with Expert Consultancy services will help to educate the masses in Forensic Techniques. Her discussions on online finger print, age of ink by tagging and other new facilities in FBI with the Forensic Experts at IRS, FBI, Chicago has benefited the Institute of Forensic Science and Helik Advisory Ltd.

At home front, she has been a very responsible mother and her daughter, Vanitha an MBA from UT, Dallas is a Financial Advisor to Global Banks at Milwaukee WI, her son Kamesh an IITian is a visiting Researcher at Neuro Centre at Hebrew University, Jerusalem, Israel. Her husband a retired senior BARC scientist has always been a source of encouragement for her. ■