



Archana Sharma is Outstanding Scientist and Group Director, Beam Technology Development Group, BARC, Mumbai. Born on 17th Sept 1964 in Ujjain (MP), Archana is second of 4 siblings. Her parents, Raghuvvar Prasad Tiwary and Kamleshwari Tiwari, both very progressive forward-looking individuals having strong will power and resolve, dedicated entire life to instill high moral values, quality education and economic independence of their children. The life that they dreamt of, manifested through their children, who are qualified professionals in Engineering and have achieved remarkable success in respective fields.

Archana's formative years were shaped by a balanced, liberal, inclusive and progressive academic environment in various locations in Madhya Pradesh, including primary education in Saraswati Shishu Mandir. After completing her HSC, she went on to pursue B.E. from MACT Bhopal (Maulana Azad College of Technology). A distinction holder throughout, she completed BE in Electrical Engineering in 1987. Thereafter, she was selected for Dhabha Atomic Research Centre, Mumbai through 31st batch of BARC Training School. She also completed her MSc (Engg.) in HVE from IISc, Bangalore followed by PhD (HVE) from IISc, Bangalore in 2002. She also did a course in Advance Management in NIAS, Bangalore.

Starting as Scientific Officer – C in BARC, she has risen to the position of Director, Beam Technology Development Group and also holds the position of Head, Pulsed Power & Electromagnetic Division, BARC (Vizag). Her field of expertise is high power pulsed technology for nuclear and strategic applications, electron beam accelerators for food and industrial applications, Laser and Plasma for health and environment sector. Her current interest is to make compact and repetitive pulsed power systems for nuclear and industrial utilization.

Her accomplishments are in the following areas: Establishment of Pulsed Power & Electromagnetic Labs in for R&D at BARC (Vizag); Design & development of Multi Gigawatt pulsed power systems for Flash X-rays; Design and development of intense microwave sources to study IEMI threshold of critical electronics; Shock Plasma generator for rock fracturing and enhanced oil recovery for oil wells; Electron Beam accelerator for food, agricultural, medical, environmental and Industrial applications and Electromagnetic pulsed welding for similar/dissimilar welding of nuclear grade qualification. Archana is Chairman of Safety committee for Strategic Radiation Facilities of BARC.

Archana is also Senior Professor and PhD Guide at Homi Bhabha National Institute, Mumbai. She is Member of Board of studies and Standing Academic Council of HBNI and Chairman, Doctoral Committee. Under her guidance, 20 M.Tech. and 10 Ph.D. theses have been completed. Her fast decision-making ability with consistent perseverance and not giving up attitude set her apart. She attributes her success and achievement to unconditional support from family members and DAE fraternity.

The Awards/Recognition conferred on her include the following: DAE Homi Bhabha Science and Technology Award; Group Achievement Awards; elected **Fellow of National Academy of Engineering**; Fellow of Institution of Engineers and Fellow of Institution of Engineering & Technology, UK. •

She established Pulsed Power & Electromagnetic Labs in for R&D at BARC (Vizag) encompassing latest pulsed power technologies for nuclear, industrial and R&D applications.





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B.Tech (Mech), M.Tech (Bio Med)

उप-कार्यकारी निदेशक/ Deputy Executive Director

Ref: INAE/608/AKAM/ WE Compendium

March 20, 2023

Sub: Compendium on "Women Engineers in India Vol 1"

Dear Sir/Madam,

This is further to letter dated March 2, 2023 from Prof Indranil Manna, President, INAE informing that the Compendium on "Women Engineers in India Vol 1" prepared by INAE under the aegis of the *Azadi ka Amrit Mahotsav* celebrations of the Government of India, by the contributions of the Editorial Committee under the Chairmanship of Prof Purnendu Ghosh, former Vice-President, INAE was released by the Chief Guest, Dr Jitendra Singh, Hon'ble Minister of State (Independent Charge) for the Ministry of Science and Technology & Earth Sciences during the National Science Day Function 2023 organized by DST, Govt. of India at Vigyan Bhawan on February 28, 2023. The Compendium was released in presence of the PSA to Govt. of India Prof. Ajay Kumar Sood; Prof K VijayRaghavan, former PSA to Govt. of India; Dr S Chandrasekhar, Secretary, DST and other dignitaries during the function.

Please find enclosed a copy of the Compendium on "Women Engineers in India Vol 1". Needless to say that the publication was made possible because of the sincere and sustained contributions of the esteemed Members of the Editorial Committee under the distinguished Chairmanship of Prof Purnendu Ghosh who is also the Editor of the subject Compendium.

We thank you for your noteworthy contributions.

With warm regards,

Yours sincerely,

Lt Col Shobhit Rai (Retd)

Encl: As above

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