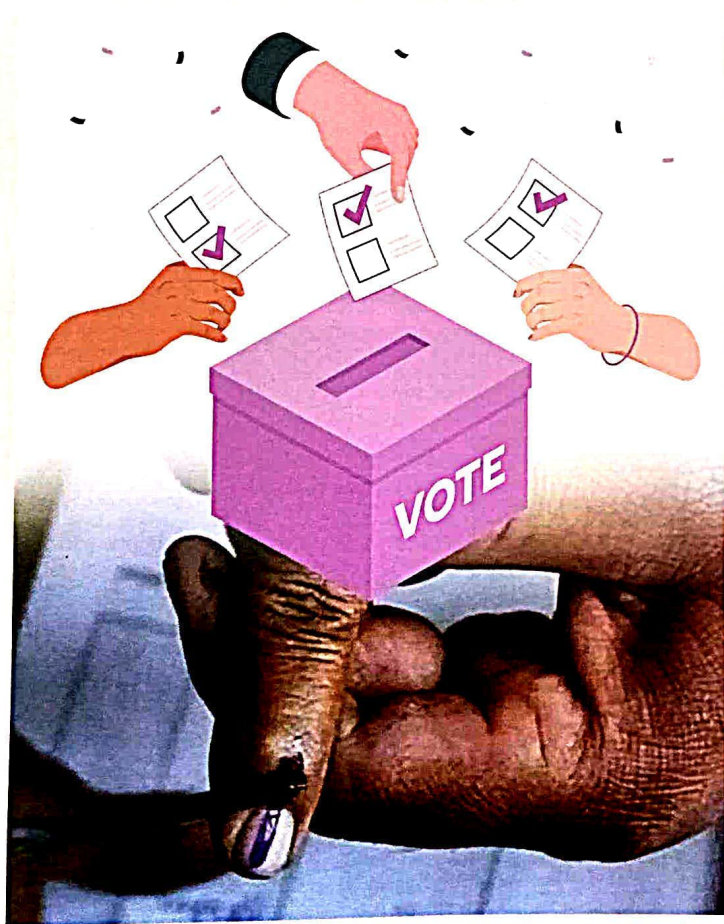


The Story of India's Indelible Ink

A testament to the power of science in service of society



IN 1950, as India took its first step as a fledgling democracy, ensuring fair and free elections posed a significant challenge. Amidst concerns about fraudulent voting, the Council of Scientific and Industrial Research (CSIR) stepped forward with a mission to find a scientific solution to safeguard the democratic process.

At the helm of this endeavour was the Ink Development Unit (IDU) at the CSIR-National Physical Laboratory (CSIR-NPL), New Delhi, led by Dr Salimuzzaman Siddiqui. Initially focused on manufacturing postal stamping ink, the IDU soon pivoted its efforts toward developing an "Indelible Ink" — a mark signifying citizen participation in the electoral process and preventing attempts at double voting.

Years of research and experimentation led to the breakthrough — a unique concoction based on silver nitrate. Upon contact with the skin and exposure to ultraviolet light, the indelible ink leaves an indelible deep purple mark. It became a symbol of democratic participation, proudly worn on the left forefinger of every voter.

For India's first two general elections, CSIR-NPL manufactured and supplied approximately 3 lakh litres of indelible ink each time to the Election Commission of India. Before the 1962 general elections, the ink formula was transferred to Mysore Paints & Varnish Ltd (MPVL), a government undertaking that has since supplied the ink for every election after that.

The success of the indelible ink was immediate and resounding, securing India's elections and catching the attention of nations worldwide grappling with similar challenges.

Beyond Elections: A Legacy of Innovation

Over the decades, the ink formula remained unchanged, which is a testament to its effectiveness and the creators' foresight. However, the spirit of innovation at CSIR-NPL persisted. In the 21st century, as technology advanced, the need for enhanced security and fraud prevention emerged; thereby, researchers at CSIR-NPL envisioned a future where this technology extended beyond elections, offering solutions in diverse fields. Luminescent inks were explored for anti-counterfeiting measures, medical diagnostics, and forensic applications. The potential for integrating microchips or QR codes within the ink paved the way for a future where a single drop could hold a wealth of information, enhancing security further.

Meanwhile, the original indelible ink continued its global journey, adapting to the specific needs of different nations and climates. Its evolution from a humble marking tool to a high-tech security solution is a testament to the power of human ingenuity and innovation.

The story of the indelible ink is a reminder that science serves society and democracy. As long as elections are held, the indelible ink will continue to play its crucial role, ensuring that every vote counts and every voice is heard.