



Homage

Satya - a teacher par-excellence

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Prof. S V M Satyanarayana of Pondicherry University passed away on 16th September 2023. He succumbed to cancer despite medical intervention. Satyanarayana was born in 1970 in a small town called Uppalapadu in the Guntur district of Andhra Pradesh. He studied at Nagarjuna University (BSc) and then at the Regional College of Education, Mysore (MSc Ed) before joining the Indira Gandhi Centre for Atomic Research (IGCAR) at Kalpakkam to pursue his doctoral studies. His research primarily focussed on nonlinear dynamics, chaos and related aspects in time-series analysis. Though his research did not involve any aspect of condensed matter, he often learnt many topics in condensed matter to help his fellow students with their research. The topics ranged from group theory for analyzing crystal structure to band structure calculations to data analysis for extracting meaningful information from experiments. It is not an overstatement to say that his contributions helped shape the lives of many individuals who have become professional teachers and researchers.

Soon after he joined IGCAR in 1994 as a research scholar, he had many opportunities to contribute to physics teaching there. The first instance was the initiative by IGCAR to organize summer schools, Summer Training in Physics (STIP), for post-graduate physics students. We, including Satya, were ambitious and over-enthusiastic in that we conducted lectures in the morning, laboratory training in the afternoons and problem-solving sessions after dinner. Though the students struggled with the high-intensity, long-drawn learning schedule, it is heartening that many of them have established themselves as researchers. I am sure they all will remember Satya's contributions in moulding them. He was involved in all the subsequent editions of STIP. After spending nearly a decade at IGCAR as a scientist, he moved to Pondicherry University (PU) in 2006 as a faculty member.

Fondly remembered as Satya by IGCAR and PU colleagues and as "Satya Sir" by his students, he championed the cause of enabling more students to take up physics research. We often hear of teachers who motivate their university or college students. Rarely do we see individuals who seek students and bring them to the research fold. Satya belonged to that rare breed.

However, Satya was not the one to be satisfied with training only a handful of physics students through STIP. He wanted to widen his net to bring more students into physics and, hopefully, research. So started the now famous "Sunday classes". Every weekend,

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for almost 25 years, he met with students preparing to write national-level entrance exams for PhD. He taught them the basic concepts and, more importantly, trained them to solve problems. All these came at no cost to students! The news of a passionate teacher offering help spread among the student community quickly, and students from as faraway places as Trichy, Madurai, etc., travelled to Chennai every weekend to learn from the master. Many well-known teachers and researchers, including Prof Rajaji, Prof HS Mani and Prof. Subramaniam, came forward to help him with "Sunday Classes" since the idea resonated with their intention to nurture talent.

His genuine interest in improving physics education did not stop with training students. He planned to train teachers of physics as well. His idea to organize a complete course on the fundamentals of theoretical physics was received with great appreciation by the Academy of Physics Teachers of Kerala. The format was simple. Teachers would assemble in a college for two days every two or three months. There would be eight lectures over two days on a specific topic. The programme ran for more than two years. Participants learnt topics from mathematical physics, classical mechanics, electrodynamics, quantum mechanics and statistical physics, and, as expected, ways and means of introducing these topics to students. This endeavour initiated by Satya, I can safely say, was a roaring success.

Looking at what he achieved as an individual for the betterment of physics education, one wonders if it would ever be possible for another human being to do so. Losing such a great human being is a shattering experience for all of us, and more so for his family. We hope they take solace in that Satya was an achiever who made himself dear to many students and colleagues, and he will live forever in our memories.