

Profile of Prof. Sudhakar C Agarkar

Dr. Sudhakar C Agarkar is presently working as Professor and Dean at VPM's Academy of International Education and Research, Thane. After a long career in science and mathematics education at the Homi Bhabha Centre for Science Education (Tata Institute of Fundamental Research), Mumbai he retired on June 30, 2013. He has obtained his M. Sc. degree in Chemistry from the University of Nagpur in 1975 with university rank and Ph. D. in Science Education from the University of Poona in 1988. Over the past four decades he has made his name in the field of science and mathematics education. Presently he engages himself in understanding a rich Indian heritage in science and mathematics and spreading the awareness about it among students, teachers and parents.

Dr. Agarkar has varied professional experience of planning, implementation and evaluation of educational projects. He has successfully managed educational projects like Talent Search and Nurture among the Underprivileged (1980-86), Remedial Programme for Secondary Schools in Tribal Regions (1987-90), Improving Teaching of Science and Mathematics through Voluntary Organizations (1990-93), Quality Improvement Programme for Ashram Schools (1993-2000), In-service Training of Teachers and Teacher Educators (2000-2006), and Open Educational Resources for Schools (2007-2013).

Dr. Agarkar has conducted pioneering research in the field of science and mathematics education. Some of the areas of his research are: Instructional Strategies, Use of technology in education, Teacher professional development, etc. His special interest lies in the education of the socially deprived students. Working with disadvantaged students in Mumbai and tribal areas in Maharashtra he has developed Remedial Instructional Strategy to facilitate learning of science and mathematics among socially deprived sections of the society. This work has received international recognition and he receives invitations both from developing as well as developed countries to present his research.

In-service training of teachers and teacher educators is yet another area of work for Dr. Agarkar. He has conducted a large number of in-service training courses in science and mathematics education in India and abroad. Based on the experiences gained in these courses he has come out with a training module for practicing teachers and teacher educators. He has also brought out supporting instructional material in school science and mathematics to be used in day to day teaching.

Science and mathematics popularization is an area of great interest for Dr. Agarkar. He enjoys answering children's questions, conducting lecture demonstrations, preparing scripts for radio and television and writing popular articles for newspapers and magazines. He stands out in explaining involved scientific concepts even to a layman through his specially developed story telling technique. As a life member of the Marathi Vidnyan Parishad (a voluntary organization engaged in spreading science using the regional language Marathi) he has been organizing a variety of popular events to take science and mathematics to masses. He has written numerous popular articles that have been published in local newspapers and magazines like Vidnyan Patrika, Vidnyan Varta and Disha.

Dr. Agarkar has received many awards and distinctions. During his college days he was the recipient of National Merit Scholarship of the Government of India (1971-75). He was felicitated by the Marathi Vidnyan Parishad for his outstanding work in science education (1992). He was awarded Rotary Foundation Ambassadorial Scholarship to pursue his studies in distance education at the Open University in Milton Keynes, UK (1998-99). He was honoured by the American Biographical Institute for distinguished leadership (2004). He is the

recipient of Mary McCurdy International Award for outstanding service in elementary education in the country (2004). He has been elected as a Fellow of International Union of Pure and Applied Chemistry (2005). He received Sanjeevrayasarma award for his contribution to remedial mathematics (2011). He has also been given Homi Bhabha Award in Science Education (2012). His book on Activity based teaching of Biology received Best Instructional Material Award of the Association of Teacher educators while his another book entitled Activity based teaching of Physics received Best Science Literature Award of the Government of Maharashtra.

Based on his research and field experiences Dr. Agarkar goes on writing articles and books. He has published more than 100 technical papers in reputed peer reviewed national and international journals. He has contributed to a series of four books on Remedial Algebra and four books on Remedial Geometry as a self-study material for students who are weak in mathematics. He has brought out a series of three books on Activity based Teaching of Science for teachers. He has coauthored popular science books: A book on Science Quiz, How and Why in School Science, Use of Vacations for Students' Personality Development, Close look at China, Educational Tour of Oxford and Cambridge. He was involved in the design of M. Ed. (Science Education) course implemented by Yashvatrao Chavan Maharashtra Open University (YCMOU), Nasik and worked on curriculum for D. El. Ed. Programme implemented by the National Institute of Open Schooling (NIOS), Delhi to provide in-service training to teachers in remote areas of the country through distance mode. He has contributed chapters to five international publications: 1. Mathematics Education around the World (National Council of Teachers of Mathematics, 1999), 2. Subject Teaching and Teacher Education in the New Century (Kluwer Academic Publishers, 2000), 3. Science Education Research in Asia (Springer Publishers, 2013), 4. Science Education: A Global Perspectives (Next Generation Publication 2013), 5. New Directions in Mathematics and Science Education (Sense Publishers, 2017).

Dr. Agarkar is a globe trotter. He gets invitations to deliver lectures from various universities and institutions. He is also invited to give key note addresses and plenary lectures in national as well as international conferences. In addition, he undertakes study visits and conducts educational tours of Indian teachers and students to other countries. He has been taking a team of school students from Thane to China to participate in China Adolescent Science and Technology Innovation Contest (CASTIC) since 2007. In collaboration with the League for the Exchange of Commonwealth Teachers (LECT) he has been organizing educational tours of Indian teachers and students to UK every year since 2004. He has been taking a team to Brazil to participate in Mostratec, a science and technology fair since 2013. Since 2016 he has started taking a team of college students from Thane to the Danish Young Scientists Fair held every year in Copenhagen.

In collaboration with his son Dr. Agarkar has initiated a start-up company named EDU360 Knowledge Solutions Private Limited. In the capacity as the Academic Director of the company he has helped in designing a Learning Management System to enhance teacher pupil interaction. Recently, they have launched a mobile app named ARIOUS that enables students to experience science concepts through Augmented Reality in an interactive mode. This app has received a positive response both from teachers and students in developing as well as developed countries.