EVOLUTION OF QUANTUM THEORY & ENTANGLEMENT

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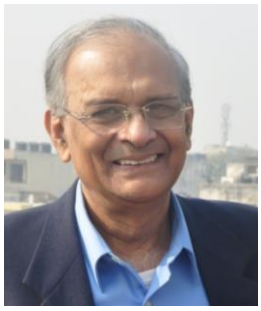
Abstract: The talks will briefly discuss (from first principles) the evolution of various theories of light which eventually led to quantum theory and concepts associated with it. It will also discuss propagation of a free particle, understanding of single slit and double slit experiments, entanglement and a very simple derivation of Bells inequality.



Ajoy Ghatak is currently Professor Megh Nad Saha Fellow of NASI (The National Academy of Sciences, India). He received his BSc from Agra College, M.Sc from Delhi University and PhD from Cornell University. After a short tenure as a Research Associate at Brookhaven National Laboratory, he joined IIT Delhi in 1966. Professor Ghatak has research interests in Fiber Optics & Quantum Mechanics. He has authored several books including his undergraduate text on OPTICS which has been translated to Chinese and Persian; the 6th edition of this book has been published recently. His other books include *Quantum Mechanics: Theory & Applications* (coauthored with Professor S. Lokanathan), *Fiber Optics*, *Lasers* (both coauthored with Professor K. Thyagarajan) and a popular book on *Albert Einstein: The Story of a Genius.* He is recipient of the 2008 SPIE Educator award in recognition of "*his unparalleled global contributions to the field of fiber optics research, and his tireless dedication to optics education worldwide..*"; the 2003 Esther Hoffman Beller award (instituted by The Optical Society of America) in recognition of his "*outstanding contributions to optics education …*" ; International Commission for Optics 1998 Galileo Galilei award and also the CSIR 1979 S.S. Bhatnagar award for "*outstanding contributions in physical sciences*".