GROUP MEMBERS:
1. Ms. Shital Kahane
2. Ms. Priya Khatri
3. Mr. Deepak More
4. Mr. Chinmay Phadnis
5. Mr. Nilesh Pote
6. Mr. Kiran Sonawane

RECENT PROJECTS UNDERTAKEN:

1. Optical Spectroscopy of Single Q Dot
   Epifluorescence spectrometer to study single quantum dot is being established to understand electron energy levels and getting rid of the inhomogeneous broadening in ensemble. CdZnSe, core/shell quantum dots are under investigations.

2. Study of Si Quantum Dots for Solar Cell Applications
   Use of semiconductor quantum dots to improve the solar cell efficiency via improving light collection, spectral response, and suppressing surface recombination are being investigated.

3. Metal-Semiconductor Nanocrystals: Optical Perspective
   The complementary properties of metal and semiconductor nanocrystals, make the metal/semiconductor junctions an attractive candidate in studies of luminescence, photovoltaics and photocatalysis. Charge transfer mechanism in metal/semiconductor nanocrystals and effects thereof on the luminescence behavior is being focused.

WORK SUPERVISED FOR Ph.D. DEGREE:

(12) Interplay Between Magnetic and Optical Properties of Doped ZnO Nanocrystals
   Ph.D. awarded to Darshana Inamdar (July 2012).

(11) Optical Perspective of Silicon and Doped ZnSe Quantum Dots
   Ph.D. awarded to Ch. Rajesh (May 2012).

(10) Photophysical Properties of Zinc Selenide Based Quantum Dots
   Ph.D. awarded to Amit D. Lad (Jan. 2009).

(9) Synthesis and Study of Doped ZnO Nanoparticles
   Ph.D. awarded to S.D. Kshirsagar (Jan. 2009).
(8) Studies of Aluminum Doped Zinc Oxide Nanoparticles
   M.Phil awarded to Pratibha Kadam (October 2008).

(7) Optical Properties of Metal/Semiconductor Nano Hetero Structures
   M.Phil. awarded to Shashikant Patole (December 2005)

(6) Synthesis and Optical Properties of Ag and Au based Nanostructures
   Ph.D. awarded to M. Islam by University of Pune (August 2005)

(5) Photophysics of Zinc Sulphide and Zinc Selenide based Quantum Structures
   Ph.D. awarded to V.V. Nikesh by University of Pune (Oct. 2004).

(4) Synthesis and Characterization of Zinc Oxide Quantum dots.
   Ph.D. awarded to B.S. Bendre by University of Pune (Oct. 2003).

(3) Quantum Size Effects in Oxide Nanocrystals.
   Ph.D. awarded to Kavita Borgohain by University of Pune (Sept. 2002).

(2) Studies of Size Dependence of the Electronic Structure of Semiconducting Quantum Dots.
   Ph.D. awarded to Neelesh Kumbhojkar by University of Pune (April. 2002).

(1) Study of Luminescence Behavior of Chemically Grown ZnO Quantum Dots
   M.Phil awarded to Kavita Borgohain by University of Pune (April 1998).