



# ACHARYA PRAFULLA CHANDRA COLLEGE

Govt. Sponsored | NAAC Accredited A Grade College



PG-Prospectus  
2020-21

New Barrackpore, Kolkata, West Bengal 700131

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## **VISION STATEMENT**

We, at Acharya Prafulla Chandra College undertake to impart knowledge and skill of the highest quality by applying technological innovations through the use of modern technological tools for generating manpower of the highest quality as required in industries, research organizations and academia. Our aim is to create a technologically superior and ethically strong human resource for the nation who may go on to become global leaders by making a difference to the world at large.

### **Mission:**

- To achieve excellent standards of value based quality education with market driven research orientation in order to create technologically superior and ethically strong manpower of global standards. Our Policies and Actions will be driven by the goal of attaining the following program educational objectives:
- to develop relevant infrastructure and learning resources with conducive climate for pursuing planned research and learning practices by all stakeholders
- To develop young professionals with cutting edge technological knowledge and skill, good communication ability and interpersonal skills for meeting challenges with innovation and skill
- To provide career oriented domain skills for Academia, Research and Industry.
- Inculcate a sense of ethics and respect amongst all its family members as well as heritage of our society
- Develop an appropriate environment of trust to attract and motivate the best of students, teachers and support staff
- To strive for achieving the stated goals of the government in the field of Higher Education and try and establish linkage with industry and research institutes.
- To inculcate through our activities a concern for the environment in these young minds so that they may strive for adoption of cleaner and greener technologies in their professional life.

## **PRINCIPAL'S MESSAGE**

Acharya Prafulla Chandra Ray, after whom the college has its present name, was a great educationist with a vision. Our institution has always strived to mould its action based on his vision of universal literacy with emphasis on 'utility education' i.e. empowering students with the necessary skillset to make them self-sufficient in the field academics and industry. With increase in the number of undergraduate students in various colleges, the University of Calcutta decided to introduce Post Graduate course with academic autonomy in undergraduate colleges and chose our college as one of the first such institutions in the year 2004. Postgraduate education in this institution started in the year 2004 with microbiology and in subsequent years we introduced postgraduate courses (M.A/M.Sc ) in Electronic Science, Chemistry , Physics ,Computer Science , Mathematics , History and Bengali . The opening of PG courses with academic autonomy allowed us to independently employ novel and ingenious avenues of teaching and hence we chalked out our own teaching plan and PG syllabus approved by the concerned Board of studies, which incorporated the latest techniques of imparting quality education. We have included the most up-to-date topics both in theoretical and in practical papers and developed the habit of updating the syllabus at the end of each academic session so that the students passing out from our Institute can meet the growing demands of Industry and Educational and Research Institute. Today's higher education has witnessed a paradigm shift from elitist esotericism to common mans right to knowledge. This college is trying to adapt itself to this new way of thinking. Along with classroom teachings students are sent to premier research institutes for dissertation work. In recognition of our potential for excellence the department of Science and Technology has provided us financial assistance under its FIST programme 2012 for augmentation of research and teaching facilities in our postgraduate departments.

As per the last census data India has probably the largest youth population in the world with around 50% below t hag of twenty five. We believe that only a proper nurture of this human resource can help realize the true potential of this great country of ours and we will continue to strive for that goal.

# **MICROBIOLOGY**

**Year of Establishment:** UG Honours Course -1997, M.Sc. - 2004

**Intake Capacity: 31**

Acharya Prafulla Chandra College is one of the first colleges to start PG Microbiology course with course specific academic autonomy under Calcutta University from the year 2004. At the start there were 20 seats for students and currently the intake capacity is 31. We have adopted the Semester system of examination for the post-graduate course since the academic session 2008-2009. The performance evaluation is based on the absolute grading system on a 6 point scale.

The faculty members of this department are well qualified, possessing professional expertise and skill to deliver their best of teaching and research capabilities. Our faculty members are actively involved in research and generous grants are received in the forms of Minor and Major research projects from UGC, DST and DBT. Two students are registered for Ph.D theses submission and are in their final phases of Ph.D work. One more is awaiting for registration for Ph,D thesis submission. Every year several students are trained as summer research trainees for duration of 45 days. The interactions with the illustrious list of our guest faculty has always been enriching and encouraging for the students and regular faculty members. We also receive constant support from our Principal who regularly takes classes in spite of his busy schedule since the inception of the course.

Many of our ex-students are presently well-placed in their research areas and in their jobs in different parts of India and have made us proud. Several ex students from this department have successfully qualified in UGC-NET and GATE.

**List of High end instruments (functioning) available in the department:**

1. Portable cold room (Indian make) 4 degree Celcius;
2. Power Back-up system 10kVA online UPS with 4 hrs back-up. (Emerson);
3. Ultra Low temperature freezer -80 degree Celcius (Operon)
4. Protein purification System (Bio-Rad);
5. Ultrasonic processor (Takashi);
6. DS-Fi U3 Camera for TS 100-F Inverted Microscope (Nikon);
7. Gel Doc system (Bio-Rad),
8. Elisa Reader (Thermo Fischer).

## Faculty list

1. Dr. Prajna Mandal, Ph.D, 2. Mr.Sisir Rajak, M.Sc, 3. Shaikh Rajesh Ali, M.Phil, 4 .Dr. Nabanita Giri, Ph.D, 5. Srijana Rai, M.Sc., 6. Dr. Indrani Dutta, 7. Dr. Santanu Roy, Ph.D, 8. Paramita Ghosh, M.Sc., 9. Upasana Das, M.Sc. and 10. Dr. Saktibrata Bhowmik (Principal).



# **ELECTRONICS**

**Year of Establishment of the department:** Honours Course 1996; M.Sc.(**Electronic Science**) -2005

**Intake Capacity: 31**

**Eligibility : B.Sc (Hons) in Electronics/Physics**

The undergraduate teaching in Electronics in Acharya Prafulla Chandra college, New Barrackpore was introduced as a general course in 1986. Subsequently the Department of Electronics, A.P.C. College became the first college in West Bengal to start Honours course in Electronics. The first batch of 20 students passed out in 1999. Our UG result over the years has been highly satisfactory, with many of our students being University toppers and a sizable number of them established themselves in academic institutions in India and abroad as well as in reputed industries like Wipro, TCS, CTS, IBM and alike.

With increase in the number of undergraduate students in various colleges the University of Calcutta decided to introduce the Post Graduate course with academic autonomy in undergraduate colleges; and once again The department of Electronics, A.P.C. College became the first undergraduate college in West Bengal to offer M.Sc in electronic Science in 2005 Till date we have had academic autonomy enabling us to frame our own syllabus which is regularly updated to incorporate the latest developments in the field. The faculty consists of five full time teachers .Besides them the department has over the years been enriched by experienced guest faculties from different Universities (Calcutta, Jadavpur, IEST, Vidyasagar, MAKAUT ) and research institutes (SINP, Cultivation of Science etc) in and around Calcutta.

The alumni of our college are spread across Industry (BSNL, RELIANCE Telecom, XYLINX Corporation) to teaching (different colleges across West Bengal) and Research in India (IIT Bombay, Jadavpur University, BIT, Mesra) and abroad (Taiwan) .

The year 2012 was another milestone- in recognition of our potential for academic excellence we were selected for a grant under the DST-FIST program .We accepted this an affirmation of our efforts to provide quality education and develop into a center of excellence , and the journey continues.....

### **Laboratory facilities:**

- i)** Basic Electronics (Analog and Digital Lab);
- ii)** Microprocessor Lab;
- iii)** Semiconductor Device Lab;
- iv)** Communication Lab;
- v)** Fiber Optics Lab;
- vi)** Microwave Lab;
- vii)** VHDL Lab, Computer Programming (MATLAB, C) Lab;
- viii)** Thin Film Deposition and Primary Characterization Lab.

### **Faculty:-**

- i)** Dr. Syed Rafi Ahmed, *M.Sc., Ph.D. (Tech), Associate Professor*
- ii)** Dr. Subhro Ghosal; *M.Sc., Ph.D., Associate Professor*
- iii)** Dr. Prosenjit Roy Chowdhury, *M.Sc., Ph.D., Assistant Professor*
- iv)** Ayan Kanti Pradhan, *M.Sc., Assistant Professor*
- v)** Dr. Aswini Kumar Mallick *M.Sc., Ph.D., Assistant Professor*
- vi)** Dr. Abhijit Banerjee, *M.Sc., Ph.D., SACT*
- vii)** Ruma Bhattacharya, *M.Sc., SACT*



# CHEMISTRY

**Year of Establishment of the department:** Honours Course 1969; M.Sc. 2008

**Intake capacity: 38**

Department of Chemistry, Acharya Prafulla Chandra College, has started Post Graduate Course in 2008 with specialisations in Inorganic, Organic and Physical Chemistry. Intake capacity in this course, at present, is 38. After obtention of M.Sc degree students of this department become scattered in various spheres that mainly include academics and Industry. Some of the students have done research of high quality in different renowned institutes of this country and abroad as evidenced by their publications in international journals of high repute. A number of modern instruments are also owned by this department that facilitates the performance of project and research work.

## Faculty:

1. Dr. Saktibrata Bhowmik, *M.Sc., Ph.D., Principal*
2. Dr. Nimai Ratan Adhikari, *M.Sc., M.Phil., Ph.D., Associate Professor*
3. Dr. Kallol Mukherjee, *M.Sc., Ph.D., Associate Professor*
4. Dr. Subhojit Ghosh, *M.Sc., Ph.D., Associate Professor*
5. Dr. Sandip Saha, *M.Sc., Ph.D., Associate Professor*
6. Dr. Madhumita Dandopath Patra, *M.Sc., Ph.D., Assistant Professor*
7. Dr. Madhushree Das Sarma, *M.Sc., Ph.D., Assistant Professor*
8. Ajay Tamang, *M.Sc., Assistant Professor*





# PHYSICS

**Year of Establishment:** Pre University 1961; (Honours) in Physics 1994; M.Sc 2009

**Intake capacity: 31**

The Department of Physics began its journey in the year 1961 when the college was affiliated under the University of Calcutta. Back then, the college only offered Pre-University and B. Sc. General Course to the enrolled students. In the year 1994, Honours Course was introduced. The Post Graduation course in Physics was introduced in the year of 2009. Presently the Department offers both Honours, General courses along with the Post Graduation Course under the curriculum of the West Bengal State University. In the department, research activities are pursued by the teachers and research scholars. The students of the department get academic exposure to various other institutions and universities through class lectures, project works, and seminars. The passed out students have progressed in diverse directions in their career that include teaching, research and academics, Govt. sector, corporate sector, banking etc.

## Faculty:

- i) Dr. Ananda Sarkar, *M.Sc., Ph.D., Assistant Professor*
- ii) Dr. Sukhomoy Bhattacharya, *M.Sc., Ph.D., Assistant Professor*
- iii) Dr. Indranil Bhattacharya, *M.Sc., Ph.D., Assistant Professor*
- iv) Dr. Goutam Biswas, *M.Sc., Ph.D., Associate Professor*
- v) Dr. Saurish Chakrabarty, *M.Sc., Ph.D., Assistant Professor*
- vi) Smt. Anamika Das, *M.Sc., SACT*
- vii) Md. Moinul Islam, *M.Sc., SACT*



## **Mathematics**

**Year of Establishment of the department:** Honours Course-1968; M. Sc. 2017

**Intake capacity: 15**

Mathematics happens to be one of the most ancient sciences of the world. Some of the most famous intellectuals of the world right from Aristotle and Pythagoras, Euclid and Ptolemy to Aryabhata and Bhaskaracharya have dabbled in one or more branches of mathematics to fortify their knowledge and hone their mental skills.

Welcome to the department of Mathematics at Acharya Prafulla Chandra College, New Barrackpore.

We offer exceptional opportunities for study in Mathematics at the undergraduate as well as postgraduate level. The department of mathematics opened in 1961-62 for B.SC General course and in 1968-69 for B.Sc honours course in Mathematics. In the year 2017 the post-graduate course has been started. The department has over approximately 180 students in undergraduate level in honours course and approximately 20 students enrolled in master's degree program. The department has risen to a one of the best departments in West Bengal State University with a distinguished faculty of total 7 persons. The department has a network of over 10 computers running a mix of windows and Linux. The department houses one general purpose computer lab for undergraduate and post- graduate students. Graduates and postgraduates of Mathematics are in demand in diverse sectors and many of our alumni are well placed in the private and public sector.

### **Faculty:**

- 1) Sri Haricharan Mohanto, *M.Sc.; Associate Professor*
- 2) Dr. Kusumika Kundu, *M.Sc., Ph.D, Assistant Professor*
- 3) SK. Anowar Hossain, *M.Sc.; Assistant Professor*
- 4) Dr. Abul Kalam Mondal; *M.Sc., Ph.D, Assistant Professor*
- 5) Smt. Sumita Saha, *M.Sc., SACT*



# COMPUTER SCIENCE

**Year of Establishment of the department:** B.Sc. Honours Course- 1995; M. Sc.- 2009

**Intake capacity: 28**

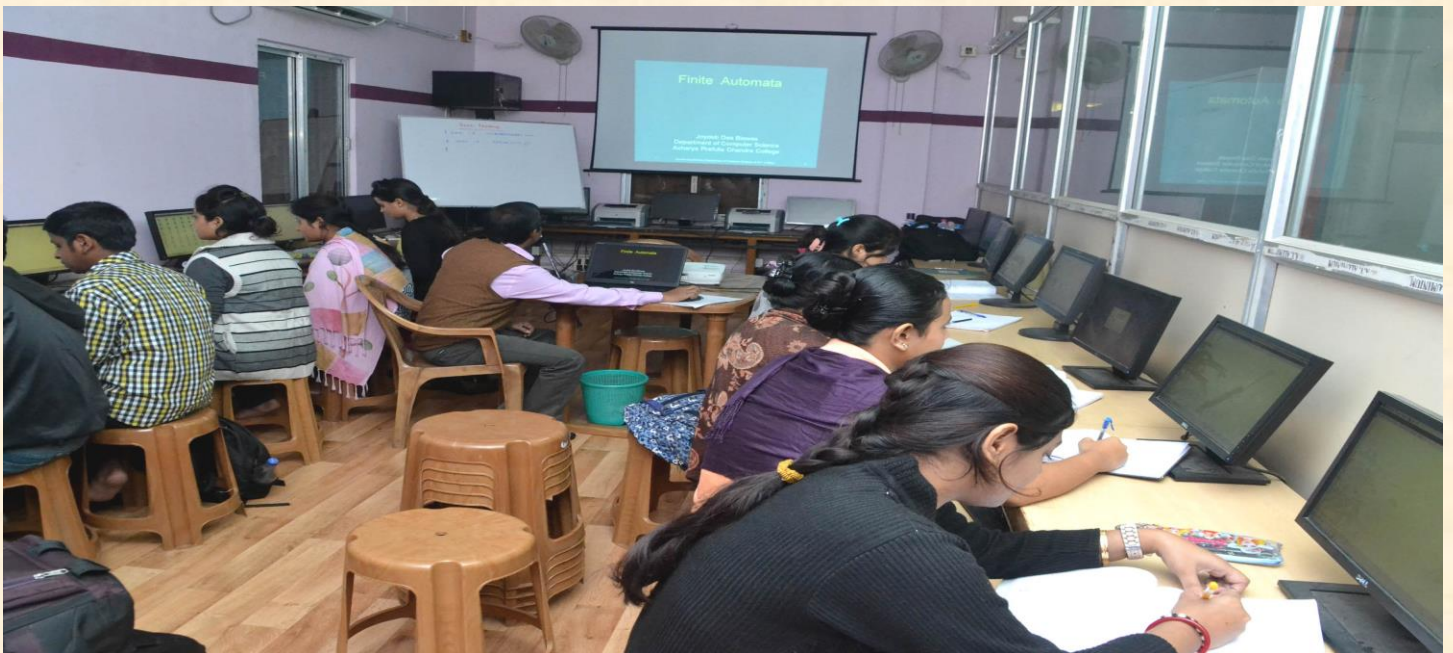
The enormous industrial growth and socio-economic development since mid '80s was possible because of Microprocessor driven automation. Visionaries and policymakers of modern India could foresee the same in time. As a result of this, Computer Science and Technology was introduced at the premier institutes like IITs, ISI, NITs, CU, JU, BE College and the scope of the subject was limited to a brilliant few. Although the quality in manpower was ensured, the quantity was an issue that required proper attention. It involved a rigorous cost-benefit analysis, because extension of the subject to a larger audience, required high initial investment.

At this point Acharya Prafulla Chandra College, New Barrackpore came forward to pioneer Computer Science education at B.Sc. Honours level in Eastern India (**1995**) under Calcutta University. This triggered the introduction of the course in other institutions and computer science Honours course gradually evolved as a discipline of mass education.

The academic aura and brilliance of our students played an important role in the development of M.Sc. (Computer Science) of Calcutta University since its inception in 1998. Many of them, elevated to the topmost positions in organizations like Cognizant Technology Solutions, Tata Consultancy Services, Microsoft, Wipro Technology and IBM. Some of them became distinguished faculties in the internationally acclaimed learning centres like Jadavpur University and Calcutta University. A number of them opted for lectureship through WBCSC / PSC after qualifying NET/SLET/SET. A number of our students pursued their higher studies at the institutes of international repute like Indian Institute of Technologies (IITs), Indian Statistical Institute (ISI), Chennai Mathematical Institute (CMI), Max Plank University, Banaras Hindu University (BHU), BITS Pilani, Ramakrishna Mission Vivekananda University (Belur). A number of our under-graduate students are selected as junior software developer at organizations like CTS, TCS (TCS-IGNITE). Even after the affiliation of the B.Sc.(Honours) course had changed to West Bengal State University from the academic session 2008-2009 the academic qualities of our students, continued to dominate the M.Sc.(Computer Science) course of WBSU as well. To fulfil the demand of the student communities as well as to sustain the standard of M. Sc (Computer Sc) education, the department is offering M.Sc.(Computer Science) course under the affiliation of WBSU since **2009-2010** academic session. A number of our post-graduate students got absorbed in organizations like CTS, WIPRO, TCS. Some of them qualified in GATE and NET and they are perusing their M Tech and Ph D. We are happy to inform that the one of our post-graduate students got a lectureship in Computer Science through WBCSC.

## Faculty-

1. Sri Joydeb Das Biswas, *M. Tech, Associate professor*
2. Dr. Kunal Das, *M.Tech., Ph.D., Assistant Professor*
3. Paramita Biswas, *M.Tech., Assistant Professor*
4. Smt. Soumi Dasgupta (Seal), *M.Sc(CS)., SACT*
5. Sri Pradyut Saha, *M.Sc. (CS), SACT*
6. Sri Gobinda Karmakar, *MCA, M.Tech (IT), SACT*
7. Sri Soumya Pratik Saha, *M.Sc (CS), SACT*
8. Debjani Bhattacharjee, *M.Sc., SACT*



# History

**Year of Establishment of the department:** B.Sc. Honours Course 1995; M. A. 2016

**Intake Capacity: 25**

Ever since the inception of Acharya Prafulla Chandra College in 1960, the Department of History is running successfully. It has both Honours and General sections. In 2016 the Post Graduate section has been opened. There are four teachers on substantive posts. The total number of Hons. students at present is 200. The Dept. is always careful about the various needs of the students, whether it is academics or personal. Apart from regular studies the students take part in extracurricular activities within and outside the college. The departmental students organise Freshers Welcome & Teachers' Day every year. Students are successful in their academic pursuits and many of them have done Post Graduation M.Phil & Ph.D in History from different Universities. Students have also joined in teaching, art theatre & private sectors. Quite a few students are running their own business successfully. The department publishes Wall Magazines also.

## Faculty:

1. Dr. Subhra Chaudhuri *M.A., Ph.D., Associate Professor*
2. Dr. Pritha Lahiri, *M.A., Ph.D. Associate Professor*
3. Sri Debasish Mondal, *M.A., Assistant Professor*
4. Md. Sarwar Jahan, *M.A., B.Ed., M.Phil., Assistant Professor*



# BENGALI

**Year of Establishment of the department:** B.Sc. Honours 1960 ; M. Sc. 2017

**Intake capacity:** 30

Department of Bengali of Acharya Prafulla Chandra college started its journey since 1960 along with other departments. Bengali department of this college is very well structured as well as a big department compared with other discipline. Recently, in 2017 Post Graduate course has been introduced to give opportunity of the students for higher studies in Bengali. All the Teachers along with guest lecturers of this department are well educated and do their duties sincerely. Their teaching performances reflect in the result of the University Examinations. So far, Students all along show their excellence in academic as well as in different areas of literary and co curricular activities. Student – Teacher relation is very good. All the teachers of this department are friend, philosopher and guide of the students. We always try to enrich our department with our sincere effort.

## **Faculty:**

1. Dr. Chitrita Dutta, *M.A., Ph.D., Associate Professor*
2. Dr. Mallika Saha, *M.A., M.Phil., Ph.D., Associate Professor*
3. Dr. Nazimul Haque, *M.A., Ph.D., Assistant Professor*
4. Dr. Tapati Barman, *M.A., M.Phil., Ph.D., Assistant Professor*
5. Suman Kumar Gantait, *M.A., SACT*
6. Amlan Dasgupta, *M.A., SACT*
7. Dipankar Dutta, *M.A., SACT*
8. Soma Sardar, *M.A., SACT*



## **GENERAL INFORMATION**

**Eligibility:** Passed 3-year B.Sc./B.A .Hons. in respective subjects from UGC recognized University.

**For Electronic Science, graduates with Honours in Physics may also apply. A candidate intending to apply both for Physics and Electronic Science must submit separate application forms.**

No candidates would be allowed for admission after a lapse of more than 2 years from the year of passing the previous qualifying examination or discontinuation of recognized regular course of study after passing the last qualifying examination, the year of admission will not be taken into account while calculating 2 years of passing the last qualifying examination. PNC Candidates are not allowed to apply.

All the admissions are PROVISIONAL and the authority reserves the right to cancel any application at the time of verification without showing any reason whatsoever.

In accordance with the orders of the Honorable Supreme Court, UGC has mandated that all students must submit a student's anti-ragging undertaking and a parent's anti-ragging undertaking to the college at the time of admission. The undertaking can be filled online at [www.antiragging.in](http://www.antiragging.in) or [www.amanmovement.org](http://www.amanmovement.org). Students are expected to fill-up the affidavit available at the mentioned web-links and present the signed copies of the same at the time of admission failing which the admission process won't be completed.

### **Reservation of seats for graduates from West Bengal State University and graduates from other Universities :**

In pursuance of the memo of the Dept. of Higher Education, Govt. of West Bengal (Memo No. 808-EH/Edn(U)/1U-831/12 dated 29.09.2020 ) applicable for the Academic session 2020-21 in view of the prevailing pandemic situation

80% of the total seats in all the subjects are reserved for the graduates from the colleges affiliated to the West Bengal State University.

Remaining 20% of the total seats are opened up for open competition among graduates from other universities /colleges including the graduates from the colleges affiliated to the West Bengal State University.

Incase, 80% of seats reserved for candidates from WBSU remain unfilled the same may be filled up with students from other Universities. Similarly if the 20% of seats reserved for candidates from other Universities remain unfilled the same may be filled up with students from WBSU



## **Migration**

Students coming from other universities / other states or outside India, if admitted, must produce a Migration Certificate within One Month from the date of Admission.

The students from Bangladesh (who fulfill the criteria) may be admitted provided they obtain Indian Citizenship Certificate or produce students' visa issued by appropriate authority. Proper evidence should be furnished during the time of admission.

The Principal has the authority to reject any application for admission, without showing reasons, in the interest of the college.

## **Category-wise breakup of seats in different subjects for admission to M.A/M.Sc Courses**

Subject	Seats Reserved for Students of colleges affiliated to WBSU (80%)					Seats reserved for students of colleges affiliated to other Universities including WBSU(20%)					TOTAL
	Gen	SC	ST	OBC-A	OBC-B	Gen	SC	ST	OBC-A	OBC-B	
Microbiology	14	05	02	02	02	03	02	00	01	00	31
Electronic Sc	14	05	02	02	02	03	02	00	01	00	31
Chemistry	17	06	02	03	02	04	02	00	01	01	38
Physics	14	05	02	02	02	03	02	00	01	00	31
Computer Sc.	12	05	02	02	01	03	01	00	01	01	28
Mathematics	06	02	01	02	01	02	01	0	00	0	15
History	11	05	01	02	01	03	01	00	01	00	25
Bengali	13	05	02	02	02	03	02	00	01	00	30

**\*\* For PWD candidates 3% seats are reserved horizontally for all categories**

## **INFRASTRUCTURAL FACILITIES AND STUDENT SUPPORT**

- (i) Playing Facilities – Basketball Court, Football ground, Cricket practice pitch besides Indoor games like Table tennis, carrom etc in the student's common room.'
- (ii) Both the main campus and the second campus are under the surveillance of the CCTV.
- (iii) Library – The postgraduate departments have individual libraries. Besides the hard-copy books the students can also access e-books and online academic journals available from the e-room of the central library
- (iv) Power supply – For un-interrupted power supply the the college has three generators, one with capacity 85KVA (green set).
- (v) Hostel facilities – There is a Boy's hostel for OBC students and a Girl's Hostel where students from different districts can stay.
- (vi) A local chapter of NPTEL has been opened in the college to help students in doing certification courses from IISc/IITs.