

HILDREN'S EDUCATION SOCIETY (REGD.)

THE OXFORD COLLEGE OF SCIENCE

# Annual Report 2018-19

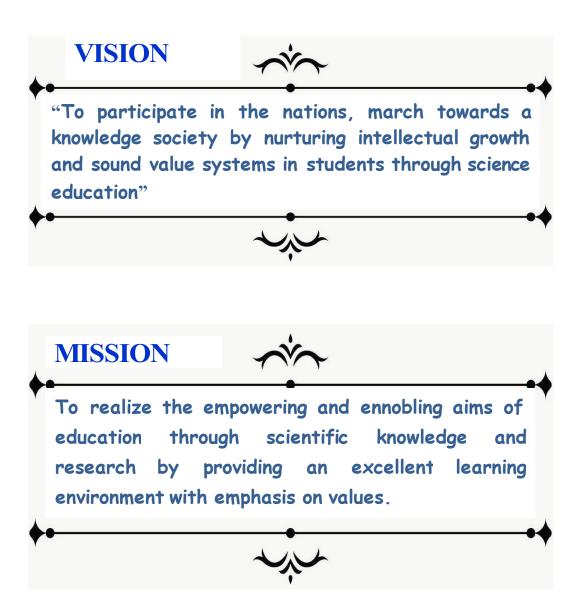
CHILDREN'S EDUCATION SOCIETY (REGD.)



# "VIDYA SARVATRA SHOBHATE"

The logo statement envisions the knowledge to one and all for better future. The Institution stresses the importance of nourishing young minds with enough food for thought, sensitizing them to the socio economic realities thereby energizing them to work for bright and prosperous tomorrow.

Goddess Saraswathi the repository of knowledge or "Vidya" stands for the overall development of the student's personality that results from an ideal combination of values, knowledge and skills.





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Founder Chairman

Late Sri S. Narasa Raju (05.06.1941-16.05.2016)

#### "Coming together is a beginning; keeping together is progress; working together is success".

The Oxford College of Science has adopted a dynamic creative and the communicative approach in education research and development. Since science converse the broad field of knowledge that deals with observed facts and relationships among these facts, faculty aims at facilitating the opportunities for the students and helps them to explore the world of these facts and their relationships. Keeping Abstract of modern developments, the college is constantly restructuring itself and renovating its physical infrastructure as well as research and education facilities. Our aim is to motivate and empower the students to be learners and critical thinkers throughout their lives.



#### Sri S.N.V.L Narasimha Raju Chairman, The Oxford Educational Institutions

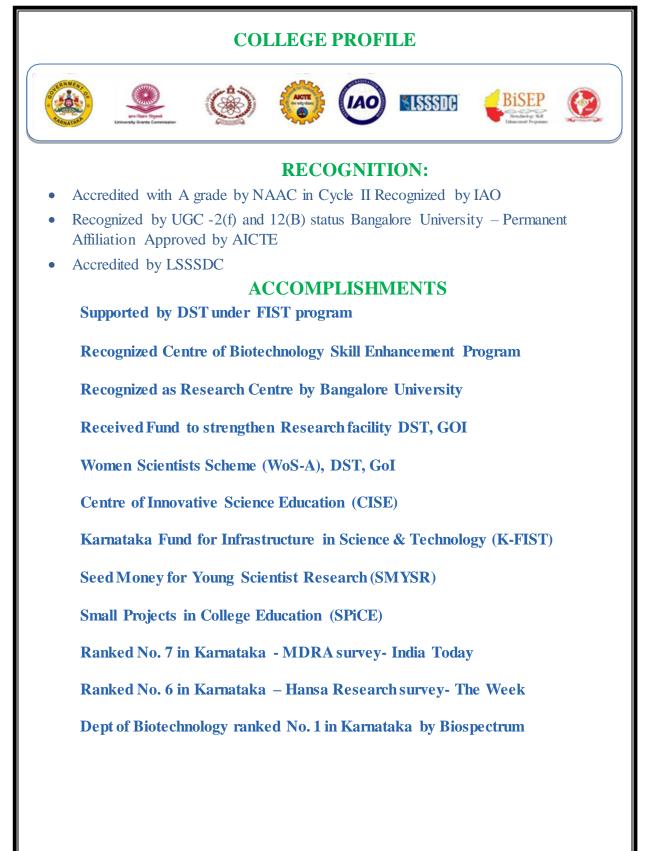


#### "Education is not the filling of a pail, but the lighting of a fire".

Purpose of our institution is to transfer knowledge and prepare young generation to participate in the nation's march. The Oxford College of Science in its long journey cherishes the effort laid by the management, faculty and students to achieve exemplary credits in the annals of education. The institution is committed to provide quality education in an enviable environment built with diligence, perseverance and excellence. Annual College Report is humble step towards showcasing the earnest efforts of the management, faculty and the students during the academic year. I wish all the success to the faculty and the students in their future prospects.

Dr. R. Kavyashree Principal, The Oxford college of Science







#### HIGHLIGHTS

11 University ranks with 80% graduation rate

693 students provided with The Oxford Merit Scholarship

799 students provided with The Oxford Unnati Scholarship

99 faculty members were provided with financial support under Research promotion scheme

86 faculty members attended various Professional Development Programs

19 non-teaching staff participated in Staff Training Program

Best Teacher Award for the faculty for outstanding contribution in the field of teaching

**Best Employee Award for excellent performance** 

7 MoUs/Collaborations were signed and executed

Kottagalu Gram Panchayath honored our NSS unit with the "Best Unit award" on 23.3.2019.

Kottagalu Gram Panchayath honored Mr. Mariswamy N as "Best NSS officer"

**Overall 70% Placement and progression rate** 



#### **GLIMPSES OF ACADEMIC EVENTS 2018-19**

- The National Conference on "Future India: Science & Technology Exploring new horizons for a sustainable scientific consortia" was organized by The Oxford College of Science in Association with The Indian Science Congress Association Bengaluru Chapter on 10<sup>th</sup> and 11<sup>th</sup> October 2018.
- A One Day National seminar on "Quality Enhancement and Sustenance in Higher Education" was organized by Internal Quality Assurance Cell (IQAC),on 5<sup>th</sup> July 2019.
- The Oxford College of Science initiated 'The Oxford Journal of Science and Research', (TOJSR) journal for original research papers with contributions from researchers across the state and published 13 research publications and 1 review article, in Volume 1, Issue 1, October 2018.
- PROJETHON 2019 was organized to showcase the project work carried out by the PG students.
- 5 Entrepreneurship development program, 8 IPR, 2 seminars and 8 workshops were organized
- Eco club TOCS observed World Environment Day 2019 to sensitize the students towards the Environment
- Oxfoignite 2018 Two days intercollegiate Cultural Fest was organized.
- Kalarava 2K19 two days intercollegiate techno Cultural Fest with the theme, Exploring the "Unseen "was organized



## STUDENT-ACHIEVERS



Children's Education Society (Regd.)

# THE OXFORD COLLEGE OF SCIENCE

(Recognised by the Govt. of Karnataka, Permanently Affiliated to Bangalore University & Approved by AICTE, New Delhi) Accredited by NAAC with 'A' Grade in II Cycle & International Accreditation Organization (IAO) Recognised by UGC under section 2(f) & 12(B)

# **RANK LIST 2018-19**



**RADHIKA D** M.Sc Computer Science



M DIVYA M.Sc Biotechemistry



M.Sc Biotechnology



NITHYA S M.Sc Computer Science



**AELIA ZAIDI** M.Sc Biotechnology



PAYAL KUMARI M.Sc Statistics



4

**AISHATH HASSAN** M.Sc Computer Science



**VIDHYA SHREE S** M.Sc Microbiology



PAROTHIDIL ANJUSHREE KRIS M.Sc Statistics



PANDE KAJAL M.Sc Biotechnology



#32, 17th 'B' Main, Sector IV, HSR Layout, Bangalore - 560 102 Ph.: +91-80 - 30266301 / 302 / 351 / 391 Fax:+91-80-30266349 www.theoxford.edu email: scienceprincipal@theoxford.edu / infohsr@theoxford.edu





#### SPORTS ACHIEVEMENT

- Santosh M won Gold Medal in Intercollegiate Competition conducted by Sports Department of TOCS
- Biswas Tushar Makhan won Silver Medal in Intercollegiate Competition conducted by Sports Department of TOCS
- Sindhushree won Bronze Medal in Intercollegiate Competition conducted by Sports Department of TOCS
- MB Shasan and Team won Gold Medal in Sports department at Interuniversity Competition
- Deepak Yadav M won Silver Medal from Sports Department at Interuniversity Competition
- Harsha C won Silver Medal from Sports Department at Interuniversity Competition
- P Varshith and Team won Silver Medal from Sports Department at Interuniversity Competition
- Rahul Kumar Shukla won II place in State Level Sports Competition
- Santhosh M won Silver medal in Intercollegiate Competition conducted by Sports Department of TOCS
- Biswas Tushar Makhan won Bronze medal in Intercollegiate Competition conducted by Sports Department of TOCS
- Deepthi and Team won Bronze medal in Intercollegiate Competition conducted by Sports Department of TOCS



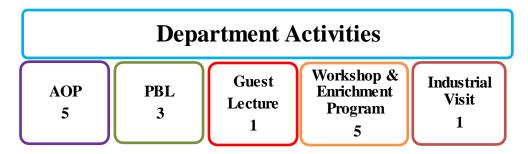
# **Department of Biochemistry**

#### About the Department

The Department of Biochemistry was established in the year 2001 with combinations Biochemistry - Zoology - Microbiology, the PG course in Biochemistry was invented in the year 2001. Biochemistry includes both chemical & biological disciplines with exponential increase in information and understanding in the field of Life Science.

#### **Department Achievements**

Bagged one university rank in the year 2018-2019



Sl.NO	AOP
1.	Biosurfactant
2.	Proteomics Profiling Of Wheat
3.	Biosimilars In Biopharmaceuticals
4.	Defense Enzyme Under Oxidative Stress
5.	Natural Dye From Flowering Plants
	Problem based Learning
1	How do you propose a therapy of burn injury by using stem cell.
2	Parkinson disease and steam cell Therapy How is it possible?
3	Bone marrow hematopoietic stem Cell and their use in Leukemia.
	Guest Lecture
1	Recent Trends in Biochemical Techniques
	Workshop and Enrichment Program
1	Green synthesis and anti-microbial activity of $CeO_2$ (Cerium Oxide) Nano particles
2	Quantitative Estimation of Bacteriophage T7
3	Extraction Purification and analysis of Phytochemicals
4	Training on Handling of Analytical Instruments
5	HPLC & GC in association with Azyme Bioscience
	Industrial Visit
1	Sami laboratory



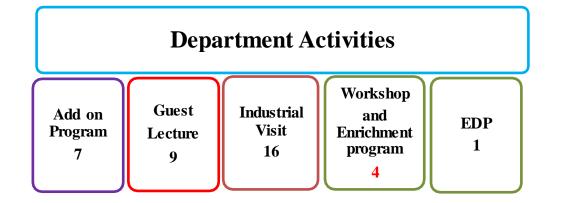
# **Department of Biotechnology**

#### About the Department

The Department of Biotechnology at the Oxford College of Science was established in the year 1998 to nurture young minds and to generate a pool of skilled manpower to cater to the ever-growing demands of this sector.

#### **Department Achievements**

Bagged three university ranks in the year 2018-2019



Sl.NO.	AOP
1.	Microbial cell culture techniques
2.	Microbial biomass production
3.	Enzyme Kinetics
4.	Laboratory scale fermentation
5.	Isoenzymes in clinical diagnosis
6.	Molecular diagnosis
	Guest Lecture
1	From cancer susceptibility mechanisms towards early intervention in cancer
2	Genetic disorders of dietary excess, getting to the heart of the matter
3	Basics of Liquid Chromatography and Mass Spectrometry
4	Pedigree Analysis
5	Quality Assurance
6	Immune checkpoint blockade therapy for cancer
7	Quality Assurance and quality control in the industrial point of view
8	Regulatory Affairs
9	Career Guidance
	Entrepreneurship Development Program
1	Entrepreneurship Development Program



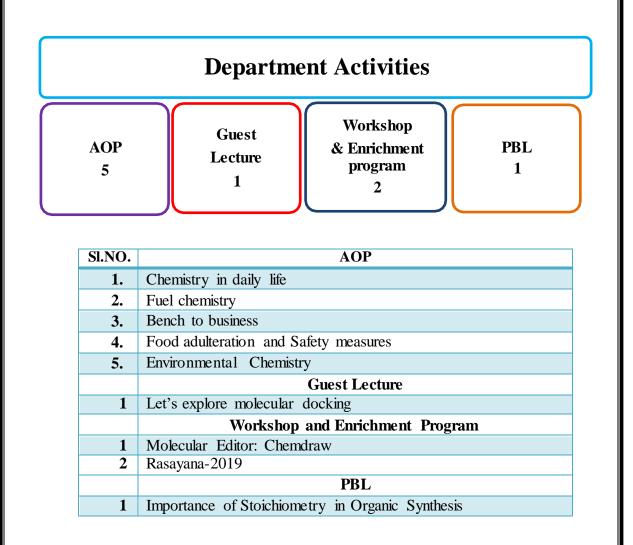
	Workshop and Enrichment Program
7.	Workshop- on hands on training in "Modern biotechnology Molecular by the students for the students"
8.	Lecture workshop on Entrepreneurship Development Program
	Industrial Visit
1	Azyme Biosciences Pvt. Ltd, Bengaluru
2	Biocon, Bengaluru
3	Centre for Human Genetics, Bengaluru
4	Bangalore Bio innovation centre( BBC), Bengaluru
5	Indo American hybrid seeds
6	NIMHANS
7	Vipragen Biosciences, Mysore
8	Karnataka soap and detergent limited, Mysore
9	Defense food research laboratory (DFRL), Mysore
9.	CSIR- National Institute of Oceanography, Goa
10.	Vergo Labs,Goa
11.	Bhat bio-tech Pvt. Ltd, Bengaluru
12.	Bangalore Bio innovation centre( BBC), Bengaluru
13.	Institute of Bioinformatics and Applied Biotechnology
14.	Anthem Biosciences
15.	Centre for Human Genetics, Bengaluru



# **Department of Chemistry**

#### About the Department

The Chemistry Department of The Oxford College of Science started in 1994 with B.Sc. [CZBt, CGtBt, CZMb] combinations and M.Sc., Organic Chemistry in 2009 and has evolved in terms of academics, co-curricular and extracurricular activities.





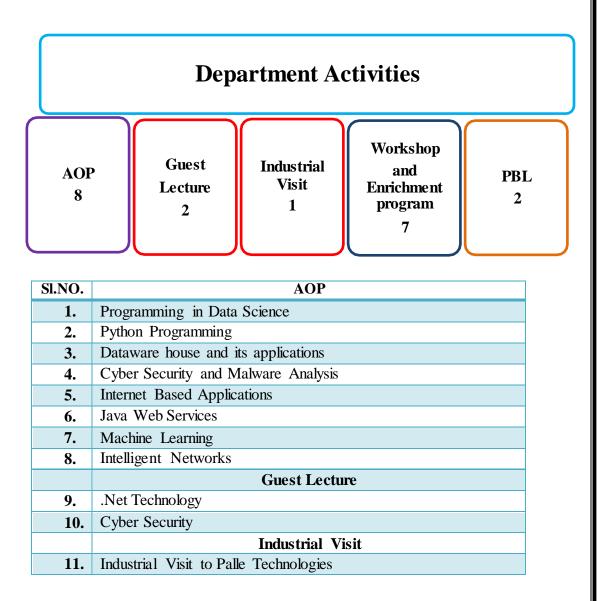
# **Department of Computer Science**

#### About the Department

Computer science department was incepted in 1995, now offers both UG and PG courses BCA, B. Sc (CS), M. Sc (CS) and MCA. The courses are eloquently carried to the student community such that it bridges the gap between IT industry requirements and the university curriculum. The department strives and provides industry ready professionals. The courses are delivered through lectures with excellent qualified faculty, (who are experienced both in academics and has hands on in industry), Practical sessions, Projects, Add-on courses and workshops. Course modules are assessed with assignments, presentations, and examinations.

#### **Department Achievements**

#### Bagged three university ranks in the year 2018-2019





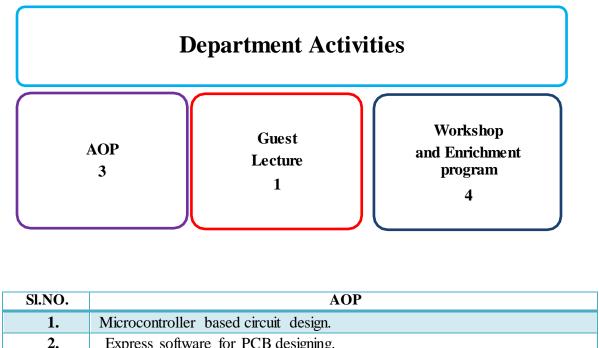
	Workshop and enrichment program
12.	Workshop- Rapid Mobile App development using Android
13.	Workshop-Placement Aid
14.	Enrichment Program on Hadoop Technology
15.	Enrichment Program on.Net Framework
16.	Enrichment Program on.Net Technology
17.	Enrichment Program on Internet of things
18.	Enrichment Program on Hadoop Technology
19.	Enrichment programme on Virtual Reality
	PBL
20.	Object Oriented Analysis
21.	Object Oriented Analysis



# **Department of Electronics**

#### About the Department

The Department of Electronics was established in the year 1994 with combinations Physics, Mathematics and Electronics (PME). A second combination of Electronics, Mathematics & Computer Science (EMCs) started in the year 2000. The PG course in was incepted in the year 2010.



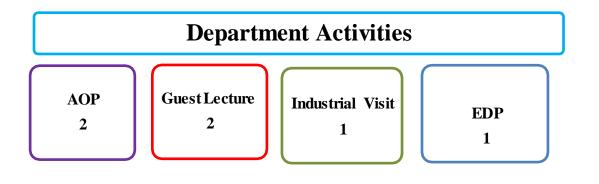
2.	Express software for r CD designing.
3.	Atmel microcontrollers
	Guest Lecture
4.	Recent Trends in Electronics
	Workshop and Enrichment Program
5.	Workshop on 3d printing
6.	Workshop on PCB designing.
7.	Audio amplifiers
8.	Internet of things.



# **Department of Fashion & Apparel Design**

#### About the Department

The Department of Fashion and Apparel Design was established in the year 1999, it is affiliated to Bangalore University. It is a 3-year full term undergraduate Fashion Designing course, where it covers the study of specialized field in the area of fashion costumedesigning, accessory and jewelry design, fashion illustrations, Textile designing, etc.



SI.NO.	AOP
1.	Jewelery making
2.	Henna art
	Guest Lecture
1	Visual Merchandizing
2	Status of Silk Industry in India
	Industrial Visit
1	Nikottin
	Entrepreneurship Development program
1	How to Commercial Paper patterns



# **Department of Languages**

#### About the Department

The Department of Languages of The Oxford College of Science was started in the year 1994. The Staff of the Languages Department has taken keen interest in training students for intercollegiate competitions and regular conduct of assembly in the college. Counseling in academic and emotional matters and involving in administrative work of the college are the other responsibilities of the Department. Research pursuits, membership to professional bodies, participation as resource persons at National/ International Seminars and conferences, participation in various literacy programs are the other activities of the department. Another addition to the Department of English is the Language Lab, which is functioning in full swing to hone the student's communication skills.

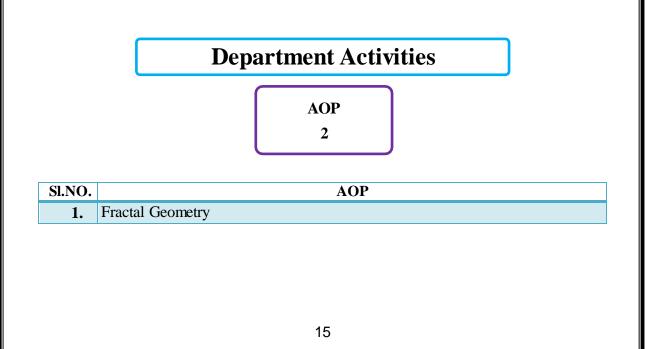
# **Department of Mathematics & Statistics**

#### About the Department:

The Department of Mathematics started in the year 1994. The UG course was started in the year 1994 and PG course in the year 2010. The Department of Statistics was incepted in the year 2005 in order to prepare professionals in statistics. The UG course was started in the year 2005 and PG course in the year 2010.

#### **Department Achievements**

Bagged two university ranks in the year 2018-2019





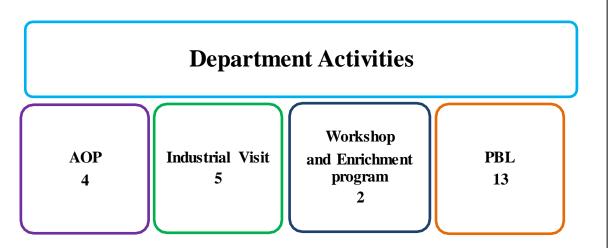
# **Department of Microbiology**

#### About the Department:

The Department of Microbiology since its inception in 1994 is committed to disseminating, inculcating and harvesting knowledge. Student centric approach and overall development of students are the vital strategy adopted in the department. Consistent University ranks and outstanding placement record are the key achievements. The Department is known for its constant innovations reflecting the creative potential with which the Department is well endowed.

#### **Department Achievements**

#### Bagged one university rank in the year 2018-2019



Sl.NO.	AOP
1.	Bio Control Agents
2.	Viral Cell Culture Techniques
3.	Biofuels from Water Hyacinth
4.	Farming of Pleurotus
	Industrial visit
1	My-sugar, Mandya
2	Defense Food Research Laboratory (DFRL)
3	Prosetta and Wipragen a Research laboratory, Mysore
4	Blue cross, pharmaceutical company, Goa
5	Mymul, Milk Processing and packing Industry, Mysore District



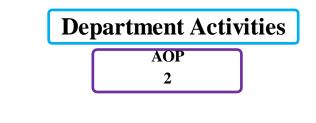
	Workshop and Enrichment program
1	Enrichment programme on "Biofertilizer Assay"
2	Biofertilizer and its assay
	PBL
1	Microbial production of Bioplastics
2	Isolation of pigmented Actinomycetes and pigment characterization
3	Assay of Antimicrobial properties of probiotics
4	Biodegradation of textile dyes
5	Throat swab samples – isolation and characterization of clinical isolates
6	Sputum samples – isolation and characterization of clinical isolates
7	Nasal swab samples – isolation and characterization of clinical isolates
8	Urine samples – isolation and characterization of clinical isolates
9	Blood samples – isolation and characterization of clinical isolates
10	Production and purification of antibiotics from soil microbes
11	Screening of microbes for the degradation of aromatic hydrocarbon
12	Isolation And Identification Of Microorganisms From Herbal Mixtures – commercially available
13	Isolation and molecular identification of chitinase producing bacteria from various sources



# **Department of Physics**

#### About the Department:

The Department of Physics (UG) was established in the year 1994 with Physics, Mathematics, Computer Science (PMCs) and Physics, Mathematics, Electronics (PME) combinations, the PG course in Physics was incepted in the year 2014.



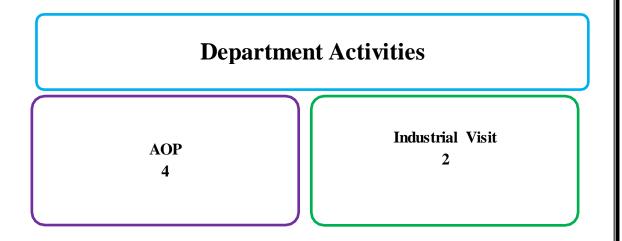
SI.NO.	AOP
1.	Optical Instruments
2.	Optics Around Us



# **Department of Zoology and Genetics**

#### About the Department:

The Department of Zoology was incepted in 1994 for undergraduate program, with the aim of imparting quality education to young minds. The Department of Genetics was started with undergraduate program in the year 2000 and PG course in Applied Geneticsin 2003. Presently, the two departments have amalgamated into "The Department of Zoologyand Genetics".



SI.NO.	AOP
1.	Immunological techniques
2.	Inversion polymorphism in chyronomus
3.	Bioinformatics tools
4.	Computational Biology
	Industrial visit
1	Industrial Visit-Seri biotech
2	Kidwai Memorial Institute of Oncology and Research Center



# **IQAC** Activities

#### About IQAC:

IQAC was established at TOCS in 2011 as a post-accreditation quality sustenance measure to channelize the efforts and measures of an institution towards academic excellence. IQAC adopts multifaceted integrated approach involving all the stakeholders for all the quality measures to fulfill the dream of achieving excellence. IQAC ensures quality literacy among all its stakeholders, prepares quality strategy for execution, conducts quality audit periodically, obtains 360° quality feedback from all the stakeholders, crafts quality policy, provides participative quality governance, delivers quality academics and performs quality research thus developing the quality culture of the institution that leads to quality quotient enhancement and thereby quality sustenance. Accordingly, IQAC, regularly conducts conferences, seminars, inter/intra institutional workshops on quality related themes and faculty development programs, staff training programs, professional development programs to upgrade and update the professional skills of faculty and staff. In 2021-22 IQAC organized 2 Faculty Development Program, 1 Professional Development Program, 2 Leadership Development Program and 2 Staff training Program. Altogether 82 % teaching and non-teaching staff had participated for the same. 3 Faculty had participated in UGC sponsored Refresher Course (Life Science)

S1.	List of FDP, PDP.RP & STP organized during 2018-19
No	
	Faculty Development Program
1.	FDP on E governance (Epathshala ERP Implementation)
2.	FDP on Clinical Significance of Elisa
3.	FDP on Web Technologies
4.	FDP on Challanges and Opportunities of Teaching the "GEN Y"
	Staff Training Program
1.	Staff Training Program On Data Entry And Data Management



# **Teaching-Learning-Evaluation**

### **Highlights:**

- 17 workshop & enrichment program, 14 guest lecture, 28 industrial visits, 10 and 19 PBL were conducted as part of Curriculum supplementing programs.
- 42 Add-on Programs were offered to the students.
- Blended learning programs were introduced for soft core paper.
- Improvement Exams to improve Internal Assessment score was introduced.
- 10 University Ranks and 83.07% graduated from the respective courses.
- 61 In-house Student Research Projects were undertaken and complete

# **Carrier Guidance - Placement**

### **Highlights:**

- Career Guidance Program on "Importance of up gradation in latest technologies for being employable", "Choosing a Right Career Path in Jobs" and" Opportunities in Insurance Companies" were organized. Career Guidance on Preparation on IELTS and Tips and Tricks to Crack CSIR were conducted as part of Career Counseling Program and 1678 students were benefitted from it.
- 25 Capacity Building and Skill Enhancement Programs like soft skill training, Aptitude Training. ICT Training, Life Skill Training programs were conducted.
- 70% overall Placement and progression rate.
- Mentoring session were conducted to support and guide students towards higher education.
- 3 Alumni activities and a Job fair was conducted



#### **RESEARCH-INNOVATION**

- 4 proposal under VGST were submitted under various scheme
- 91 faculty members provided with financial support under Research promotion scheme.
- National Conference on "Exploring New Horizons For A Sustainable Scientific Consortia", Science And Technology Future India" in association with ISCA
- The Oxford College of Science initiated 'The Oxford Journal of Science and Research', (TOJSR) journal for original research papers with contributions from researchers across the state and published 13 research publications and 1 review article, in Volume 1, Issue 1, October 2018
- 5 Entrepreneurship Development Program on EDP on "Selling Commercial Paper Patterns", "Enterpreneurship opportunities in making of IgY", "Electronics prototyping and product development", "Navigating a success path for your business" and "Workshop on Enterpreneurship and software development" organized by ED cell for faculty members and PG students
- A Symposium on "Water Conservation" organized by Departement of Biotechnology
- 8 IPR programs were organized by R & D cell for faculty members and PG students of TOCS
- 8 Workshops was organized for the post graduate and graduate students
- 1 original research articles were published in peer reviewed journals.
- 2 book chapters have been published.
- 4 Research methodology were organized by R & D cell on "Analysis and Interpretation of Research data", "Designing and Planning of Experiment", "Statistical tools in Research" and "Ethics in research and publications" for faculty members and PG students
- 7 MoUs/Collaborations have been signed for research, internships and projects.
- 61 In-house Student Research Projects were undertaken and completed.



# Administration

### **Highlights:**

- Stakeholders Meet was conducted wherein students Quality circle members were invited to prvide key suggestions and inputs.
- Awareness programs on Anti-Ragging & Anti-Sexual Harassment were organized for both UG and PG students.
- PROJETHON 2019 was organized to showcase the project work carried out by the PG students.
- Cultural fests- OXFOIGNITE 2018, KALARAVA 2K19, EUREKA, IN-BLOOM 2019 were organized in addition to intra-Department fest like ATGC. MICROMANIA, KAAVYANIKETANA, to create a balanced environment.
- Sports meet like Inter Class Chess Competition, and Intra Mural Shuttle Badminton competition, PG Indoor Games Competition were held as part of sports activities
- 693 students provided with The Oxford Merit Scholarship
- 799 students provided with The Oxford Unnati Scholarship.
- 4 Faculty Development Program, and 1 Staff Development Program for the Non-teaching staffs were organized for quality enhancement.
- 88 faculty members participated in FDP/PDP/LDP/ Refresher Programs.
- Ms. Pavana Kamath P, of The Department of Zoology and Genetics received the Best Teacher Award for the faculty for outstanding contribution in the field of teaching.
- 18 Non-teaching staff participated in Staff Training Program.
- Ms.Ligy Valsan, Office Assistant received the Best Employee Award for excellent performance.



# Extension, Outreach, Awareness & Sensitization:

### **Highlights:**

- Kottagalu Gram Panchayath honored our NSS unit with the "Best Unit award" on 23.3.2019.
- Kottagalu Gram Panchayath honored Mr. Mariswamy N as "Best NSS officer".
- 10 Extension/Outreach Programs highlighting the importance of cleanliness, environmental concerns and human values were conducted by NSS and NCC unit of the College.
- Swachatha Pakhwada, Voluntary participation in General Election, Reclamation and Dredging of lakes, National Pollution Control Day, National Energy Conservation Day, World Environment Day, World Water Day, World Health Day, and World DNA Day were observed to sensitize students on environmental concerns.

# **Quality Enhancement-Sustenance**

#### Highlights

- A One Day National seminar on "Quality Enhancement and Sustenance in Higher Education" was organized by Internal Quality Assurance Cell (IQAC), on 5<sup>th</sup> July 2019.
- Civil Service Examination coaching was introduced.
- Improvement Exam to improve LA score was introduced.
- Industry oriented skill programs were offered to enrich the curriculum.
- A total of 88 Faculty attended FDP/PDP LDP/Refresher programs.
- 91 faculty members provided with financial support under Research promotion scheme.



WORLD WATER DAY	WORLD HEALTH DAY
WORLD DNA DAY	Future India Science & Technology Conference
MICROMANIA 2019	KALARAVA2K19
25	

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