

# NGP - DBT STAR - BULLETIN



## Dr. N.G.P. ARTS AND SCIENCE COLLEGE



(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)  
Approved by Government of Tamil Nadu and Re-accredited by NAAC with 'A' Grade  
DST – FIST | DBT – Star College Scheme

Dr. N.G.P.-Kalapatti Road, Coimbatore – 641 048, Tamil Nadu, India  
Website: [www.drngpasc.ac.in](http://www.drngpasc.ac.in) | Email: [drngparts@kmch.ac.in](mailto:drngparts@kmch.ac.in) | Phone: +91 - 422 - 2369100

**PATRONS**

**Dr. Nalla G. Palaniswami** M.D., A.B (USA)  
Chairman

**Dr. Thavamani D. Palaniswami** M.D., A.B (USA)  
Secretary

**Dr. O. T. Buvaneshwaran** M.A., M.Phil., Ph.D.  
CEO

**CHIEF EDITOR**

**Prof. Dr. V. Rajendran** M.Sc., M.Phil., B.Ed.,  
M.Tech (Nanotech), Ph.D., D.Sc., Finst P (UK)  
Principal

**EDITORS**

**Dr. S. S. Sudha**  
Coordinator DBT-Star College Scheme

**Dr. S. Gowri**  
Head - Biochemistry

**Dr. P. Chidambara Rajan**  
Head - Biotechnology

**Dr. J. Renga Ramanujam**  
Head - Microbiology

**Dr. D. Sridevi**  
Head - Nutrition & Dietetics (N&D)

**ADVISORY BOARD**

**Dr. S. Balasubramanian**  
Dean - Research & Development

**Dr. D. Geetharamani**  
Dean - Academics

**Dr. S. Saravanan**  
Dean - Administration

**Dr. V. Shanmugaraju**  
Dean - Student Affairs

**Dr. T. Indhumathi**  
Department Coordinator, Biochemistry

**Dr. M. Poongothai**  
Department Coordinator, Biotechnology

**Prof. S. Senthil Prabhu**  
Department Coordinator, Microbiology

**Prof. B. Premagowri**  
Department Coordinator, N&D

**BOARD OF EDITORS****BIOCHEMISTRY**

**Dr. N. Kannikaparameswari**  
**Dr. C. Venkatesan**  
**Dr. K. Rajathi**  
**Dr. V. Usha**  
**Dr. D. Pradeepa**  
**Dr. V. Dhanaranges Kumar**  
**Prof. M. Saranya**

**BIOTECHNOLOGY**

**Prof. P. Arun**  
**Dr. K. Arungandhi**  
**Prof. M. Shanmugavadivu**  
**Dr. L. Nivetha**  
**Dr. Radha Palaniswamy**  
**Prof. S. Karthik**  
**Prof. K. Priyadharshini**

**MICROBIOLOGY**

**Dr. N. Vidhya**  
**Prof. E. Kumaran**  
**Prof. C. Sasikala**  
**Dr. A. M. Ramachandran**  
**Dr. J. Devakumar**  
**Prof. A. D. Priyadharshni**  
**Prof. A. Patricia Romila**

**NUTRITION & DIETETICS**

**Dr. S. Daniel Robert**  
**Dr. S. Uma Maheswari**  
**Dr. M. Sivasakthi**  
**Prof. R. Poornima**  
**Prof. S. Bhavani**



Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world. Life is moving in the way of science and technology. We will always have to march ahead with these developments. Some things will drop out of the public eye and will go away, but there will always be science, engineering, and technology. Science is fun. Science is curiosity. We all have natural curiosity. Science is a process of investigating. It's posing questions and coming up with a method. It is delving in. I feel elated to note that the Faculty of Bio Sciences, Dr.N.G.P. Arts and Science, Coimbatore is bringing out the annual newsletter consolidating the activities under the DBT-Star Scheme. The support from DBT has strengthened the physical infrastructure in laboratories, library, teaching aids, and promoted networking with neighboring institutes. Hands-on training and projects of day to day relevance have enhanced interest in students to pursue science courses at Undergraduate and Postgraduate level. Dr.N.G.P. Arts and Science takes pride in organizing such Scientific programmes which will create a unique platform to analyze the present and future objectives and to update technological advancements in Science and Technology.

**Dr. Nalla G Palaniswami**

Chairman

**Kovai Medical Center and Hospital (KMCH)**



We are thankful to the Government of India, New Delhi for sanctioning the prestigious DBT-star college scheme of Department of Biotechnology. Under the scheme currently four departments are supported: Biotechnology, Biochemistry, Microbiology and Food & Nutrition. The scheme has helped immensely in improving the infrastructural facilities in these departments. Various students-centric activities are being conducted for over all departments of students, including DBT-Star series, hands on training, workshops, industrial & academic visits, research projects and competition as well as faculty trainings. We are living in a society where we depend on continuous improvement in technology, good understanding of a science to take care of the environment and safe guard from various pollution. We all know that over future generation will be suffering if we don't take care of our environment. We all have to work hand in hand to improve the environment with the help of science and technology.

**Dr. Thavamani D Palaniswami**

Secretary

**Dr. NGP Educational Institutions**



I am very delighted to note that the DBT Newsletter is being brought by the participating departments under DBT-Star scheme. The Newsletter brings out the various activities organized under DBT-Star scheme at our College. The support from Department of Biotechnology, Government of India has strengthened the laboratory infrastructure, library, and other technology enabled learning resources of the participating departments. The programmes organized by the departments paved way to promote networking with neighboring institutions. I am happy to know that various activities were conducted to create a unique platform to students for updating their skill and knowledge in recent technological advancements in Science and Technology. I wish the Principal, Deans, DBT-Star college overall Programme Coordinator and the Department Coordinators, Staff, and Students of our College a great success in all their future endeavors.

**Dr. O. T. Buvaneshwaran**

Chief Executive Officer

**KMCRET**



It is my pleasure to extend heartfelt greetings to the readers of the first issue of the biannual Newsletter of the DBT-Star departments of our College. Department of Biotechnology (DBT), Government of India recognized the excellent Research and Development activities of the various departments of our College and sanctioned DBT-Star scheme to the Biochemistry, Biotechnology, Microbiology and Food and Nutrition Programmes. The main objective of the scheme is to motivate UG research and provide platform for innovative learning of Graduate students. Under this scheme, the participating departments of our College strive to disseminate their expertise and knowledge to the other participating Colleges and to the Community. Dr.N.G.P. Arts and Science College has organized a National Symposium on Under Graduate Research an annual conference, the first of its kind in India by forming DBT-Star Scheme Cluster of Colleges to explore the inherent talent and Innovative Research among the Graduate students in India. On behalf of the Management and on my own behalf, I congratulate Dr. S. S. Sudha, DBT-Star scheme Coordinator of our College and Prof. S. Senthil Prabhu, Coordinator of DBT-Star scheme, Dept of Microbiology, Dr. M. Poongothai, Coordinator of DBT-Star scheme, Dept of Biotechnology, Dr. T. Indhumathi, Coordinator of DBT-Star scheme, Dept of Biochemistry, and Dr. S. Uma Maheswari, Coordinator of DBT-Star scheme, Dept of Food and Nutrition in addition to Dr. S. Balasubramanian, Dean-Research and Development for their sincere and arduous efforts to organize various programmes to kindle the unquenchable fire of curiosity and inquiry in students and the general public. We congratulate the DBT-Star Departments for bringing out this Newsletter to reach the Community.

**Prof. Dr. V. Rajendran**

Principal

**Dr.N.G.P. Arts and Science College**



I feel delighted in penning a message to an annual newsletter being brought out by the Faculty of Biosciences to mark the successful completion of the first year of DBT-Star college scheme and eventual display of comprehensive activities undertaken by them. Star College Scheme is an initiative of Department of Biotechnology (DBT), one of the premier national scientific establishment functioning under the aegis of Department of Science and Technology (DST), Government of India. The scheme objective is to provide support to institutions offering undergraduate programmes to strengthen and improve teaching and learning outcomes in science disciplines. It is important to note that all participating departments of Dr.N.G.P. Arts and Science College, with the support from DBT have strengthened the physical infrastructure in laboratories, library, teaching aids and promoted networking with neighboring institutes. In equal measure, they have organized various activities to improve upon the skills of teachers, technical staff, and most importantly to elevate student interest in learning. Having the cardinal features of DBT-Star college scheme instituted in the first year, the participating departments should sight on organizing scientific programmes which will create a unique platform for achieving excellence in teaching and learning, and stimulate original thinking among students. I heartily congratulate the departments and wish them all success in the forth coming years.

**Dr.S.Balasubramanian**

Dean - Research and Development  
**Dr.N.G.P. Arts and Science College**



I sincerely acknowledge the Department of Biotechnology (DBT), Government of India, New Delhi for considering Dr. N. G. P. Arts and Science College under DBT-Star college scheme. Microbiology, Biotechnology, Biochemistry and Nutrition & Dietetics are the four participating departments under this scheme. Alone we can do little, and together we can do a lot. This aptly suits for the Departments that participate in DBT Star College Scheme. As an overall Programme Co-ordinator initially I had a doubt, how these activities can be done and executed well, but the department heads, department programme coordinators, each & every staff member of the department joined hands under the guidance of our team leader Prof. Dr. V. Rajendren, Principal and Dr. S. Balasubramanian, Dean R&D. The one year journey under DBT-Star College Scheme provided me insights and experience widely. All four participating departments have done their maximum level and striding to reach acme in the forth coming years. The concept of learn, unlearn and relearn has been practiced by all members of faculty of participating department. Through this DBT-Star College Scheme teacher quality & teaching quality are being improved. Students are highly motivated and they show keen interest to comprehend practical methodologies in a conducive way. It is an opportunity for them to visit Industries, to participate in Conferences, Seminars and Workshops to take up the mini group projects in order to ameliorate their personal skills. I, sincerely thank the mentors Dr. R. Rajendren and Dr. N. Ezhili for their support and suggestions. Finally, I owe my heartfelt thanks to our management for their constant and consistent support in all the steps that we initiate.

**Dr. S. S. Sudha**

DBT-Star College Scheme Coordinator  
**Dr.N.G.P. Arts and Science College**



Kovai Medical Center Research and Educational Trust (KMCRET) is a non-profitable voluntary organization established in 1990. The goal of the trust is to render quality and character building education and providing research facilities to the youth of India and abroad. The trust extends its educational service through 6 institutions. Dr. N.G.P. Arts and Science College (Dr NGPASC) is an organization of KMCRET trust which was established in the year 1997 under the leadership of Dr. Nalla G. Palaniswami, as its Chairman and Dr. Thavamani D. Palaniswami as its Managing Trustee and Secretary. The Institution has begun with four Undergraduate programmes namely B.Sc. Biochemistry, B.Sc. Computer Science, B.Com. and B.B.M. with a student strength of 78 and with Faculty members of 9. This co-educational self-financing College was started in a rural area in Kalapatti, Coimbatore District with a motto on Nurture, Grow and Prosper, is affiliated to Bharathiar University, Coimbatore. The College has been recognized under 2(f) and 12(B) by UGC, New Delhi. The University Grants Commission, New Delhi has conferred autonomous status from the Academic year 2015-16. This facilitates the institution a freedom of designing the curricular and co-curricular activities to mould the students and meet global standards. The college was re-Accredited by NAAC with "A" Grade with the CGPA of 3.17 on March 17, 2016. The National Institutional Ranking Framework (NIRF) of MHRD has ranked our college at 44<sup>th</sup>, 91<sup>st</sup> and 67<sup>th</sup> positions in the years 2017, 2018 and 2019 respectively.

At present, 7068 students are pursuing their graduate, Postgraduate and research programmes at Dr NGPASC. The institution has 310 faculty members and 75 administrative and technical staff. The teacher student ratio is 1: 20. The institution offers 27 UG courses, 14 PG courses and 12 research programmes (M. Phil./Ph.D.) In order to promote research activities among Staff and Students, the Management has initiated the in-house funding (Seed money, Student Start-up projects, research incentives/ honorarium, travel grant support etc.). To promote inter disciplinary and quality research; the research advisory/steering committee guides the Faculty in drafting/finalizing their research proposals for funding. The Institution has been granted a sum of Rs. 3.53/- Crore for projects, schemes, seminars, conferences and workshops from various funding agencies like UGC, DRDO, ICMR, ICSSR, CSIR, DST, DBT and TNSCST. The Alumni Association conducts the alumni meet in India and abroad through chapters frequently in order to enrich the connectivity of Alumni. The Institution recognizes the meritorious Alumni with awards on 26<sup>th</sup> January every year. The NSS has 3 units which extends its service to the community. Outreach activities are carried out in areas such as village adoption, Awareness camps on health issues, Cashless transaction, Digital India etc. under Swachh Bharat initiatives. The deep involvement of students in different club activities.

### DBT-STAR COLLEGE SCHEME

The Department of Biotechnology (DBT), Government of India, New Delhi, has launched Star College Scheme with an aim to strengthen life science and biotechnology education and training at undergraduate level. The purpose is to improve critical thinking and provide 'hands on' experimental work in the cutting edge-technologies needed for modern biological studies at undergraduate level in life sciences and as a result of such experiences, more students will take up life science as a career.

Under this scheme various programmes is being organized to strengthen academics and research for achieving excellence in teaching and training and to enhance the quality of learning.

This also helps to enhance the teaching process and to stimulate original thinking through 'hands-on' exposure to experimental work and participation in summer schools. The scheme envisages intensification of interdisciplinary approach among the science departments and also with nearby institutions for small research projects, expert lectures, visits and training programmes and outreach activities.

- Strengthening the academic and physical infrastructure for achieving excellence in teaching and training. Enhancing the quality of learning and teaching process to stimulate original thinking through 'hands-on' exposure to experimental work and participation in summer schools.
- Increasing capabilities of core instrumentation resources by procuring new equipment and upgrading of existing facilities
- Network promotion and strengthening ties with neighbouring institutions and other laboratories.
- Providing access and exposure to students to research laboratories and industries in the country.
- Help to devise Standard Operating Procedures (SOP's) /kits for Practical; and to provide better library facility to students and teachers.
- Organizing specialized training programmes for faculty improvement for optimizing technical capabilities. Field trips, guest lectures, workshops, hands-on training, visits to National Laboratories, National and International Seminars for both faculty and students.
- Instilling research acumen in UG students and seed the aspiration in young minds to pursue advanced learning (post graduate and doctoral programmes)

### ENVISAGED IMPACT OF STAR COLLEGE SCHEME

Demonstration to Experimentation, Group to Individual, and Realization of research at undergraduate level. Increase in wet lab standard and Hands on approach, Interdepartmental interface, and need based syllabi

### EXPECTED OUTCOME

Sustenance of Student Strength, Increase in Employability, Basic Research Interest and Faculty instructional ability. Upgraded syllabi beyond consumables constraint, Professional view on Science courses.

DBT under the star college scheme sanctioned an amount of Rs. 82.00 lakhs for three years to the following bioscience departments

- **Biochemistry**
- **Biotechnology**
- **Microbiology**
- **Nutrition and Dietetics**

### DEPARTMENT OF BIOCHEMISTRY

Biochemistry is a discipline that offers a challenging environment, and in return nurtures the candidate's future. The curriculum is framed in such a way that will allow students to develop knowledge and gain expertise to meet demands of voluminous opportunities at various capacities in Diagnostic and Research Laboratories in a Clinical setup and in Pharmaceutical Companies. The Department of Biochemistry is a vibrant and ambitious division of the college with qualified academic staff, research scholars and students. The Department is a very successful unit of the college which is firmly committed to excellence both in research and teaching. The department adopts an integrated approach embracing the view that tomorrow's breakthrough are likely to occur at the interface of traditional biological subdivisions. A degree in Biochemistry is the first step towards a wide variety of careers options in pharmaceutical and food industries, in hospital services, and in many biological and medical research divisions.

### DEPARTMENT OF BIOTECHNOLOGY

The Department was established in the year 2002 with the goal of rendering innovative education to the learning aspirers. Biotechnology being a fast growing arena of research and innovation, our department offers UG, PG, M.Phil. and Ph.D. programs. Department is a good platform for the budding bio-technologists with excellent infrastructure and instrumentation facilities.

### DEPARTMENT OF MICROBIOLOGY

The department of Microbiology was established in the year 2003 with the postgraduate programme and in 2004 with the undergraduate course. The research programme comprises M.Phil. and Ph.D. which was started in the year 2005 and 2007 respectively. The department has a strong link with the Kovai Medical Center and Hospital and other institutions of the rust where there are a number of ongoing research projects. The department is armed with well qualified, dedicated and experienced faculty members. The department is committed towards the healthy academic (curriculum and co-curriculum) growth of the students as well as fostering the teaching and research activities of the faculty. The Department engages in various Projects supported by DBT, ICMR, UGC, DST, DRDO, CSIR and TNSCST.

### DEPARTMENT OF NUTRITION & DIETETICS

The Department of Nutrition and Dietetics was started in the year 2003 offering the course B.Sc. in Food Science and Nutrition with well-equipped laboratories. Post Graduate course in Food and Nutrition was started in the year 2004. The department also extends the activities of research by offering Master of Philosophy in Food and Nutrition from the year 2005 and Doctorate of Philosophy from the year 2016 onwards. The Department has qualified and well experienced faculty.



The aims of this program is to provide an opportunity to all undergraduate students to personally experience the foundational importance of various industrial establishments, relate industries functional setup with their curricula and identify the matching industrial job to their academic profile (or) inspired to start an industry or business of their own. The participating departments identified various industrial establishments in the following specialized areas around Coimbatore which are relevant to respective academic discipline and arranged student visits. This student visit to industrial establishments is made mandatory in their curricula and the DBT-Star scheme provides eagerly sought support to meet this obligatory requirement.

## VACCINES AND IMMUNOLOGY

A one day Industrial Visit was organized by the Department of Microbiology to Pasteur Institute of India, Coonor on 12.09.2018. Exactly 56 students accompanied by 3 faculty members took part in the activity.

Around 63 students along with 2 faculty members from the Department of Biotechnology, took part in the one day Industrial Visit to Pasteur Institute of India, Coonor on 22.09.2018.



Students of Microbiology and Biotechnology visiting Pasteur Institute of India in Coonor

## FOOD PROCESSING

Department of biochemistry organized a one day Industrial Visit to Indian Institute of Food Processing Technology, Thanjavur on 24.09.2018. Exactly 59 students and 3 staff members of the department took part in the activity.

About 68 students and 5 faculty members from the Department of Biochemistry visited UPASI Tea Research Foundation, Valparai on 09.02.2019.

The Department of Nutrition and Dietetics organized an Industrial Visit to Aavin Milk Industry Coimbatore on 13.08.2018. Around 60 students and 3 staff members from the department took part in the activity.

Exactly 114 students and 3 staff members from the Department of Nutrition and Dietetics visited TANTEA, Coonor on 08.02.2019.



Visit of N&D Students to TANTEA in Coonor.

N&D Students at Aavin, Coimbatore.

## BIODIVERSITY AND ENVIRONMENT

The Department of Microbiology organized two days Industrial Visit to SACON (Salim Ali Institute for Ornithology and Natural history), Coimbatore on 26.02.2019 and 27.02.2019. Exactly 126 students and 4 staff members from the department took part in the activity.

The Department of Biotechnology organized one day Industrial visit to National Research Centre for Banana (NRCB), Tiruchirapalli on 12.09.2018, which was participated by 5 students and 2 staff members.

The students and staff members of the Department of Biotechnology visited Botanical Survey of India, TNAU Campus, Coimbatore, on 10.01.2019. Exactly 65 staff members and 2 staff members took part in the activity.

## CLINICAL DIAGNOSIS

Exactly 65 students and 3 staff members of the Department of Biochemistry visited "Alchem Diagnostics", Coimbatore on 03.09.2018.



Biotechnology Students visit to NRCB at Tiruchirapalli.

Students of Microbiology at SACON, Coimbatore.

# CONFERENCES, SEMINARS AND SYMPOSIUMS PARTICIPATION

This program is intended to encourage teaching and technical fraternity and student community to participate in various national and international programs organized by state and central universities, institutions, colleges, government and non-governmental organizations, professional bodies, societies, and share their professional opinions, ideas and research findings and get abreast with latest scientific and technical developments in the interested fields. The following are the notable participation of our student and staff from the DBT-Star departments in conferences, seminars and symposiums during the academic year (2018-19) under the DBT-Star scheme.

## NANOTECHNOLOGY

8 students and 2 staff members from DBT-Star departments participated in the national conference on "Recent Innovation in Nano-medicine and Targeted Drug Delivery" held at St. Aloysius College (autonomous), Mangaluru on 03<sup>rd</sup> September 2018.



Students and Staff participation in the National Conference held at St. Aloysius College, Mangaluru



Staff participation in the International Conference held at SRM University, Chennai.

Dr. S. S. Sudha and Prof. A. D. Priyadharshni of Microbiology department participated in the international conference on "Nano-science and Nanotechnology (ICONN, 2019) held at SRM Institute of Science and Technology, Chennai from 28<sup>th</sup> to 30<sup>th</sup> January, 2019.

## IPR

8 students and 3 staff members from DBT-Star departments participated in the DBT sponsored workshop on "Patent and Copyright" held at Hindustan College of Arts and Science, Coimbatore on 06<sup>th</sup> and 07<sup>th</sup> September, 2018.



Staff participation in the International Conference held at Kannur University, Kerala.

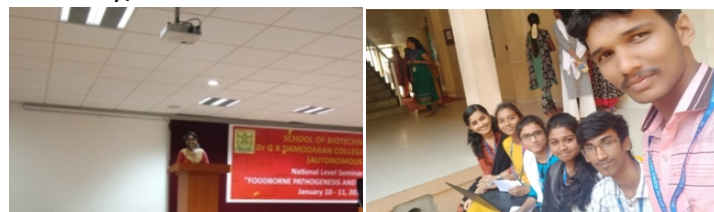
8 students and 3 staff members from DBT-Star departments participated in the workshop on "IPR" held at Hindustan College of Arts and Science, Coimbatore on 26<sup>th</sup> September, 2018.

## BIOSCIENCE RESEARCH

Dr. A. M. Ramachandran and Dr. J. Devakumar of Microbiology department participated in the international conference on "Research and Development in Bioscience (CRBD-2019)" held at Kannur University,

## FOOD MICROBIOLOGY

Prof. M. Shanmugavadivu of Biotechnology department participated in the national seminar cum medicinal plant exhibition on "Complementary and Alternative Indian System of Medicine" held at Nirmala College for Women, Coimbatore on 01<sup>st</sup> and 02<sup>nd</sup> February, 2019.



Students at the National Seminar on "Foodborne Pathogenesis and its Biocontrol" held at Dr.G.R.D. College of Science, Coimbatore.

6 students from Biotechnology department participated in the national conference on "Biological Science-Emerging Challenges & Issues (NCBCI'19) held at Sri Ramakrishna College of Arts and Science for Women, Coimbatore on 16<sup>th</sup> February, 2019

## GUEST LECTURES - MENTORS

The objective of this program is to provide an opportunity to teaching fraternity and student community to identify expertise from nationally renowned institutions and invite them to deliver lecture (s) in emerging scientific and technological disciplines. Additional purpose of this arrangement is to facilitate students and staff interaction with the mentor, and exchange opinions, ideas and research findings and develop everlasting mentoring rapport with resource person (s) for the professional guidance and development. The following are the eminent mentors invited by the students and staff of DBT-Star departments during the academic year (2018-19) under the DBT-Star scheme.

### STRUCTURAL BIOLOGY

► The Department of Microbiology organized guest lecture on “NMR and MRI in clinical applications” on 04<sup>th</sup> September, 2018. Dr. S. Senthil Kumaran from AllMS, New Delhi was the invited speaker. In this event 900 students from all participating departments attended this lecture.



Dr. Senthil Kumaran from AllMS, New Delhi at the Inauguration session of lecture on NMR and MRI applications



Mr. S. Sivakumar from SITRA, addressing Dr. NGPASC Lab Assistants on Laboratory Safety.

### LABORATORY PRACTICE

The department of Biochemistry organized guest lecture on “Good Laboratory Practices and Lab Management” on 20<sup>th</sup> February, 2019. Mr. S. Sivakumar from The South Indian Textile Research Association (SITRA), Coimbatore was the resource person. Ten Laboratory assistants from DBT-Star and basic science departments participated and benefited.



Dr. Yuvraj Haldorai, Ramalingaswamy Faculty Fellow, from BU delivering a guest lecture on Nanotechnology to Microbiology students



Dr. Ramesh Subbiah from Georgia Institute of Technology, USA during the inauguration session of a guest lecture to Biotechnology students

### NANOTECHNOLOGY AND DRUG DELIVERY

The Department of Microbiology organized a guest lecture on “Nanotechnology and its Bio-application” on 16<sup>th</sup> February, 2019. Dr. Yuvraj Haldorai, Ramalingaswami Faculty Fellow, Bharathiar University, Coimbatore was the resource person. Around 250 students and 10 faculty members attended this programme.

The department of Biotechnology organized an invited lecture on “Material Science and Design Principles of Growth factors delivery system for tissue regeneration” on 21<sup>st</sup> January, 2019. Prof. Dr. Ramesh Subbiah from Georgia Institute of Technology, USA was the Invited speaker. About 230 students and 10 staff from the biotechnology attended the guest lecture.

### BIODIVERSITY AND BIOMOLECULES

The Department of Microbiology organized guest lecture on “Micro Algal Biotechnology” on 16<sup>th</sup> August, 2018. Dr. N. Thajuddin, Bharathidasan University, Trichirapalli was the resource person. In this event 900 students participated and gained knowledge on diversity of Algae and its applications.

The Department of Biochemistry organized guest lecture on “Bio-molecules - Tools for social relevance” by Prof. M. N. Ponnusamy, University of Madras, Chennai on 12<sup>th</sup> September, 2018. Around 900 students and staff members of DBT-Star departments attended the guest lecture.



Dr. N. Thajuddin, Professor, Bharathidasan University addressing students of Microbiology



Prof. M. N. Ponnusamy, University of Madras, during the inauguration of guest lecture on Bio-molecules

### MOLECULAR STUDIES



Dr. Gurusamy Hariharasudhan, CMRC, Chosun University, South Korea addressing Biochemistry students.

The Department of Biochemistry organized guest lecture on “DNA Damage Repair Response” on 11<sup>th</sup> February, 2019. Dr. Gurusamy Hariharasudhan, Cancer Mutation Research Center (CMRC), Chosun University, South Korea was the guest speaker. About 250 Students and 10 staff members from the department of Biochemistry participated in this programme.



## OUTREACH PROGRAMMES

The objective of this program is to provide an opportunity to teaching and technical fraternities and student community to observe the society at large, relate and connect the events in society to their curricula and devise ways and means to reach the society and observe socially important national/international events, organize camps to create awareness and provide training and practices. The following are the list of social outreach programs undertaken by students and staff of DBT-Star departments during the academic year (2018-19) under the DBT-Star scheme.

### SCIENCE PROMOTION: NATIONAL SCIENCE DAY-2019

Students and staff members of DBT-Star departments organized National Science Day-2019 celebrations on the theme of "Science for people and people for science" at 10 different Government School premises in Tirupur and Coimbatore districts on 28<sup>th</sup> February, 2019. School children participated in various activities and competitions organized on that day, and received awards and prizes from the Chief Guest Dr. S. Krishnakumar, Senior Technical Officer at DRDO, Chennai.



The celebration of National Science Day 2019 at Pandinagar government secondary school by Biotechnology Students and Staff members.



Microbiology Microbiology department organized an awareness program on "Water Borne and Zoonotic Diseases" at Veeriyam Palayam, Karupparayan Palayam and Kaikolam palayam Villages on 08<sup>th</sup> February, 2019.2018.



Microbiology Students participation in a Awareness Campaign on World Hand Wash Day held at Verriam Palayam village.



National Science day celebrations at Kanakampalayam government primary school.

Microbiology department organized an awareness program on "Personal Hygiene School children" 23<sup>rd</sup> July, 2018.

Microbiology department conducted a survey on "Pathogens & Diseases among General Public" by UG Students on 12<sup>th</sup> August, 2018

Microbiology department celebrated "World Hand Wash Day" and organized an awareness program on "Hand Wash Practice" to Dr.NGPASC students on 15<sup>th</sup> October, 2018.

Biochemistry department organized an awareness programme on "Drug Abuse and Illicit Trafficking" at Periya Thadagam Village on 20<sup>th</sup> July, 2018.

### AWARENESS PROGRAMMES

Microbiology department organized door to door awareness program on "Self Medication" at Periya Thadagam



Students and Staff members of Microbiology department during Awareness Campaign held at Thadagam Village, Coimbatore.



Students and staff members of Biochemistry at Periya Thadagam village during the awareness campaign on Durg Abuse.



Awareness programme on Child sexual abuse at Panchayat Union Primary School, Thadagam village.

Microbiology department organized an awareness program on "Immunization against Lethal Diseases" at Periya Thadagam Village, Coimbatore on 21<sup>st</sup> July, 2018.



Microbiology Students at the Liver Safety Awareness Campaign. Personal Hygiene Awareness Programme held in Thadagam village.



Biochemistry department organized an awareness programme on "Child Sexual Abuse" at Panchayat Union primary school, Thadagam Village on 11<sup>th</sup> September, 2018.

Nutrition and Dietetics department organized an awareness campaign on "Breast Feeding" to pregnant and lactating women of urban health care centre at Peelamedu on 01<sup>st</sup> August, 2018.

Microbiology department organized an awareness program on "Zoonotic diseases and Personal Hygiene" at

## OUTREACH PROGRAMMES



N&D students and staff with ICDS workers at a awareness programme on Nutrition for School children.

Nutrition and Dietetics department organized an awareness campaign on “Nutrition for School Children among ICDS Workers” on 28<sup>th</sup> September, 2018.

Nutrition and Dietetics department organized an awareness campaign on “Nutrition and Health Education for Transport Employees of Dr.NGP Educational Institutions” on 10<sup>th</sup> December, 2018.

Nutrition and Dietetics department organized an awareness campaign on “Importance of Iron and Folic Acid Rich Foods among Pregnant and Lactating Mothers” at



Nutrition and Health Education awareness camp for Dr. NGPASC Transport Employees by the N&D department.

Awareness camp for Pregnant and Lactating Mothers by Dept. of N&D at Kovilpalayam, Coimbatore.

Nutrition and Dietetics department organized an awareness and information dissemination camp on “The Need for Iron Rich Nutritious Foods among Women” at Poombukar Nagar, Saravanampatti, Coimbatore on 13<sup>th</sup> February, 2019.

Nutrition and Dietetics department organized awareness on “The Impact of Nutrition Education on Iron among Adolescent Girls” on 04<sup>th</sup> March, 2019.

Biotechnology department organized an awareness on “Drug Abuse and Addiction” at Chinna Thadagam village on 08<sup>th</sup> September, 2018.

Biotechnology department organized an awareness program on “Prevention of Breast and Cervical Cancer” on 25<sup>th</sup> September, 2018.

Biotechnology department organized an outreach program on “Cancer Prevention” for Dr.N.G.P.



Students and staff members of Biotechnology at the Drug abuse awareness camp held at Chinna Thadagam village.

Biotechnology department organized an awareness program on “Drug Abuse” at Veeriyam Palayam, Karupparayan Palayam and Kaikolam palayam Villages on 11<sup>th</sup> February, 2019.

### TRAINING & PRACTICES

Nutrition and Dietetics department organized an oath taking awareness program on “Breast Feeding” to female students of Dr.NGP educational institutions on 03<sup>rd</sup> August, 2018.

Nutrition and Dietetics department organized training on “Healthy Cuisines for School Children” on 03<sup>rd</sup> September, 2018.

Nutrition and Dietetics department organized hands on training program to general public on “Fruits and Vegetable Preservation” on 12<sup>th</sup> September, 2018.

Nutrition and Dietetics department organized a demonstration session on “Formulation of Low Cost Iron and Protein Enriched Snacks for Pre-School Children” at Vilankurichi, Coimbatore on 12<sup>th</sup> February, 2019.

Nutrition and Dietetics department organized a demonstration session on “Nutritious Recipes among Anganwadi Workers” at Kovilpalayam, Coimbatore on 14<sup>th</sup> February, 2019.

Biochemistry department organized a “Health camp for Public of Kaikolampalayam Village” on 12<sup>th</sup> February, 2019.



Students and staff members of Biochemistry at the Health Camp held at Kaikolam Palayam, Coimbatore.



Awareness camp for Anganwadi workers by Dept. of N&D, at Kovil Palayam, Coimbatore.



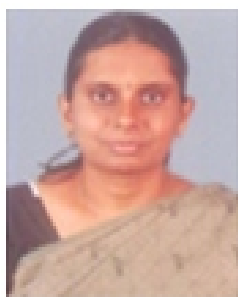
## Congratulations to our Faculty



**Dr. J. RENGARAMANUJAM**  
Professor & Head, Microbiology  
Cleared CSIR- NET – 2018



**Mrs. M. SHANMUGAVADIVU,**  
Assistant Professor, Biotechnology  
Cleared SET - 2018



**Dr. L. NIVETHA**  
Assistant Professor, Biotechnology  
attended Science Academies' summer  
research fellowship  
programme (INSA)  
at Banaras Hindu University, Varanasi



**Dr. V. SHANMUGARAJU**  
Dean – Student affairs and Professor, Biotechnology  
attended Science Academies' summer research  
fellowship programme (INSA) at North East Hill  
University, Shillong



**Dr. P. Chidambara Rajan**  
Head, Department of Biotechnology  
Attended Science Academies' summer  
research fellowship (INSA) at IIT, Mandi  
Himachal Pradesh  
Received TNSCST Student Project Fund



**Mr. S. KARTHIK**  
Assistant Professor, Biotechnology  
Received Young achiever award - 2019  
Institute of Scholars (INSC), Bangalore



**Dr.K.Rajathi**

Associate Professor, Biochemistry

Received fund Rs 7500/. for their project entitled “ Effect of Fucoidan mediated zinc oxide nano particles and the cytotoxic inhibition of trial induced apoptosis in prostate cancer PC3 cells” from **TNSCST** on February 2019 **under student project scheme.**



**Ms. Muthubharathi**

M.Sc., Biochemistry



**Dr.N.Kannikaparameswari**

Associate professor

Department of Biochemistry

Cleared SET - 2018

## STUDENTS



**Ms. N. Mayirika III.B.Sc.**

Best outgoing student award by Dr.Kalam educational Trust 2019.

Best outgoing student award and Proficiency award  
Received award for fellowship and intercollegiate level competitions

Dr.N.G.P. ASC Nalla Gounder research awards.

Received INSA summer training at Rajiv Gandhi center for Biotechnology, Thiruvananthapuram.

First place in poster presentation at JSS Academy of Higher education and research.

Second place in paper presentation at National conference of futuristic intricate stratagems in computational genomics (CGEN 2019) at Niramala college for Women, Coimbatore.



**Ms. DIVYA S. III.B.Sc.**

INSA Summer Internship Fellow at natural Biological Resources & Community Development (CNBRCD) Bengaluru, duration 2 months



**Ms.P. Kanimozhi, II M.Sc.,**  
Received Best Outgoing Student award  
by Dr.Kalam Educational Trust for Tribal,  
Chennai on 28<sup>th</sup> Feb 2019  
during National Science Day Celebration.



**Ms.J.Aswatha**  
III B.Sc., Biochemistry has got admission offer  
for **M.Sc Drug Chemistry** from Newcastle  
University, UK. She got 100% British Council  
Indian Scholarship. She also got offers from  
other universities such as Northumbria University,  
University of Leicester, Bangor University,  
Sheffield Hallam University and Aston University, UK.



**Mr.T.Aadithyan,**  
III B.Sc., Biochemistry has got admission  
offer from five universities such as  
Nottingham Trent University, Sheffield  
Hallam University, Aston University, Leeds  
Beckett University and University of Strathelgde,  
Scotland.es



**Mr. P. Gautham**  
M.Sc., Food Innovation  
University Of Greenwich UK  
Received Best Documentary  
Award “Unavalla Uyir”



**Mr. K.S. Sagar**  
M.Sc., Sports Nutrition  
Lough borough  
University UK  
Indian Dietetics Day



**Mr. B. Vishnu, III B.Sc.,** Biotechnology  
Overseas Admissions/Scholarships  
(Aston University – M.Sc Plant Science  
and Biotechnology University of Leicester  
M.Sc Cancer cell and Molecular Biology  
University of Leeds – M.Sc Stem cells and  
Regenerative Medicine University of  
Sheffield, Newcastle University, Queens  
University Belfast , University of Portsmouth,  
university of Kent, Nottingham Trent University)



**Ms. M. NIVETHTHIA** III.B.Sc.,  
In achiever day celebration received award for  
intercollegiate level competitions winner.  
First place in poster presentation at JSS Academy of  
Higher education and research.  
Second place in paper presentation at National  
conference of futuristic intricate stratagems in  
computational genomics (CGEN 2019) at Niramala  
college for Women, Coimbatore.



**Ms. R. Sandhiya**, II M.Sc.,  
Biotechnology Best Research  
Paper Review Award



**Mr. R. Jagadeesh**, III B.Sc., Biotechnology  
Overseas Admissions/Scholarships  
(University of Queensland  
M.Sc Biotechnology  
University of Leicester,  
New castle University)



**Ms. M. A. Sheerin Fatima**, III B.Sc., Biotechnology  
Overseas Admissions/Scholarships  
(University of Leicester, New castle  
University, Queen's University Belfast)



**Ms. V. Harsini**, II M.Sc., Biotechnology  
Recipient of TNSCST Student Project fund



**Ms. M. Mynumathi**, I M.Sc., Microbiology  
Young Scientist Award  
Tamilan TV  
Tamilan Mandram Viruthugal - 2018  
Chennai (14.02.2019)



## National Symposium on Graduate Research (NSGR - 19)

The participating departments of DBT-Star college scheme, under the steward leadership of our Principal, Prof. Dr. V. Rajendran came up with an excellent idea of hosting annually a national event to provide a platform and opportunity for graduate students in science and technology disciplines from DBT-Star colleges and others to share their innovative ideas, proposals, findings, process and products. Dr. N.G.P.A.S.C organized a first of its kind program in India on 26<sup>th</sup> & 27<sup>th</sup> February, 2019, where four DBT-Star colleges from Tamilnadu co-sponsored the event. PSGR Krishnammal College for Women was our Diamond Sponsor. Silver sponsors were Lady Doak College Madurai, Hindusthan College of Arts and Science, Coimbatore and Muthayammal College of Arts and Science, Rasipuram. Students from sponsored colleges and others in the region participated, presented their innovative ideas, proposals, findings, process and exhibited products. A best in each category of competition from basic sciences, life sciences and computer science received a cash prize and certification. The next phase of this event is already planned and it is scheduled to be held on 23<sup>rd</sup> & 24<sup>th</sup> January 2020. In this version, more participation is expected from different parts of our country. Through this NSGR, the organizers intended to instill the traits of innovation, idea conception, nurturing, devising, developing and demonstration among graduate students of science and technology stream.

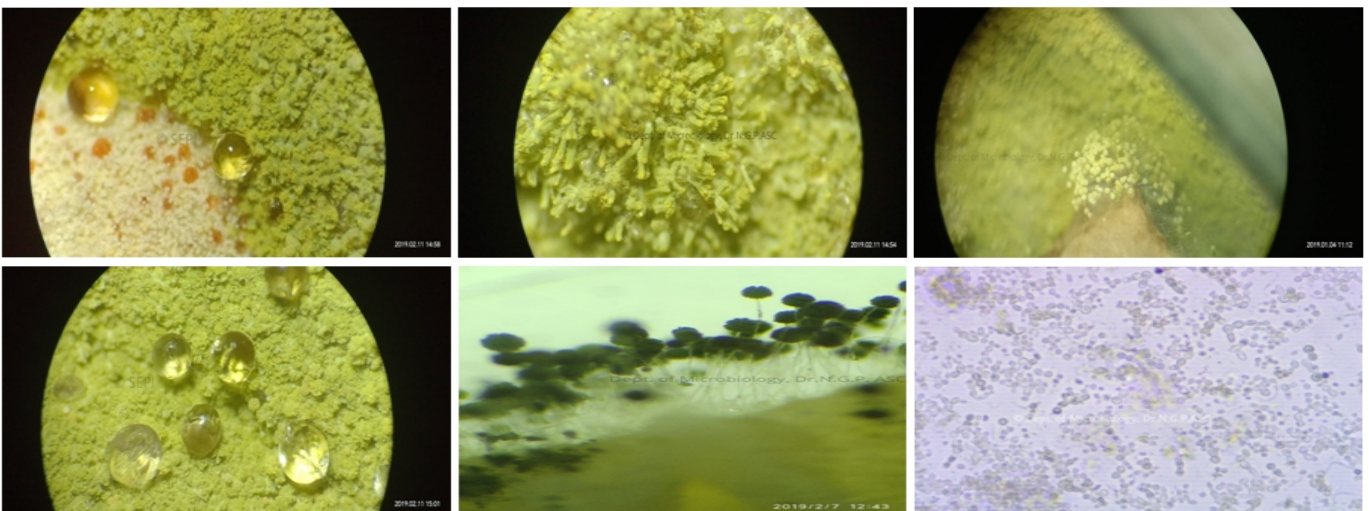




# LABORATORY UPGRADATION



## OBSERVATION OF MICROBES BY USING STEREO & INVERTED MICROSCOPE





# **Dr. N.G.P. ARTS AND SCIENCE COLLEGE**

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

Approved by Government of Tamil Nadu and Re-accredited by NAAC with 'A' Grade

DST – FIST | DBT – Star College Scheme

Dr. N.G.P.-Kalapatti Road, Coimbatore – 641 048, Tamil Nadu, India

Website: [www.drngpasc.ac.in](http://www.drngpasc.ac.in) | Email: [drngparts@kmch.ac.in](mailto:drngparts@kmch.ac.in) | Phone: +91 - 422 - 2369100