DBT STAR SHEME

2019-2020

Kishindchand Chellaram College

**K.C College, 124, Vidyasagar Principal K.M. Kundnani Chowk
Dinshaw Wachha Road, Churchgate, Mumbai - 400 020.**

DBT STAR SHEME 2019-2020

Coordinator: Dr Shalini R Sinha

The Department of Physics, Mathematics, Computer Science and Information Technology, KC College has been granted Rs. 62 lakhs under the DBT Star Scheme by the Dept. of Biotechnology, Government of India, for the period 2019-2022. Each department conducted a number of activities under this Scheme.

Master Lecture Series :
- Master Lecture series on "Future of Space Exploration", conducted by Dr. Jaydeep Mukharjee, Director, NASA, Florida Grant Consortium,Florida Space Institute, USA on 2nd December,2019, for FYJC,SYJC,FYBSc,SYBSc and TYBSc (Interdisciplinary), No. of Beneficiaries - 200.
- Master Lecture: "Following the Trails of Square Root" by Dr. S. G. Dani, on 13th January 2020,for Faculty and students, No. of beneficiaries- 63.

Workshops for students :

Physics
- Hands–on Training on "UV-Vis Scanning Spectrophotometer" on 12thFebruary,2020 for TYBSc (Life Science) and SYBSc (Physics) and No. of Beneficiaries - 42.

Mathematics
- Workshop on "Python Programming" by Dr. Ajit Kumar, Associate Professor and Head, Department of Mathematics, ICT, Mumbai on 28th August,2020 and 30thAugust2020, for SYBScstudents and no. of beneficiaries-35.
- "Python: Applications to Mathematics", workshop by Mr. Maunash Jani, Software Developer, Genius Lynx, on 25thNovember2019, forFYBSc and SYBSc students, no. of beneficiaries-31
- "Mathematics Problem Solving using Python" workshop by Mr.Maunash Jani, Software Developer, Genius Lynx, on 18thDecember,2019, forFYBSc and SYBScstudents, No. of beneficiaries-40.
- Workshop for IIT-JAM (State Level) conducted by Mr. ShriprasadTambe, Ms. Saee Joshi and Ms. Samiksha Mahajan on 6th&7thJanuary,2020, forSYBSc and TYBScstudents, No. of beneficiaries-39.

Computer Science
- Photoshop by Mr. Paresh Pandya, Proprietor, Creative Line Computer, Vile Parle on 9th January 2020, for FYCS & IT and No. of Beneficiaries - 64.
- Advanced Excel by Mr. Paresh Pandya, Proprietor, Creative Line Computer, Vile Parle on 10th January 2020, for FYCS and No. of Beneficiaries - 57.

- Responsive Web Development using Bootstrap by Mr. Shiv Kumar Varma, Research and Development Engineer, AnviraEdustation, Kandivali, Mumbai on 11th& 13th January, 2020, for SYCS and No. of Beneficiaries - 47.
- Mongo DB by Mr. SajanKamble, Web Developer, E-Scholar, and Mr. Sharad Karnekar, CEO, Digital Connext, Thane on 27th& 28th January 2020, for TY & SY CS and No. of Beneficiaries - 77.
- Firebase by Ms. Hinaben Chauhan, Software Developer, Freelancer, Mumbai, on 30th January, 2020, on 30th January 2020, for SYCS and No. of beneficiaries - 27.
- Node JS by Mr. Maunash Jani, Software Developer, Genius Lynx, Mumbai on 3rd& 4thFebruary 2020, for TYCS and No. of Beneficiaries - 27.
- Cyber Security and Ethical Hacking by Mr. Harish Chandar, Director, India Tech International Pvt. Ltd., Mulund on 7th February, 2020, for SY&FYCS and No. of Beneficiaries – 88.
- 2D and 3D Animation by Mr. Paresh Pandya, Proprietor, Creative Line Computer, Vile Parle on 28th February, 2020, for FYCS and No. of Beneficiaries - 63.
- Applied Statistics and Introduction to Machine Learning Techniques by Mr. Naveen Pahuja, Freelancer, Mumbai on 5th March, 2020, forTYCS and No. of Beneficiaries - 25.

Information Technology

- 'Implementing Distributed System on 'Windows and Linux and Configuring Linux Server for File Sharing' on 20th September,2019 by Ms. Kirti Bhatt, Guest Lecturer, forTYBSc(IT +CS) and No.of Beneficiaries – 46.
- National level Workshop on 'Writing Research Paper' on 27th September 2019 by Dr. Ashwini Kunte,Professor,Head of Electronics and Telecommunication Dept.Vice-Principal at TSEC , Mrs. Anjali Singh, Mr. Asif Rampurawala.Vice-Principal, VSIT, for TY(IT+CS) students and No.of Beneficiaries – 50.
- 'Cyber Security & Social Media Security' on 09th January, 2020 by Mr.SachinDedhia,Founder & CEO,Skynet Secure Solutions.For TY &SYBSc(IT & CS) students.No.of Beneficiaries – 76.
- 'Sustainable ICT Management for Green Computing' on 15th January, 2020 by Mr. Ahtesham Shaikh, Coordinator, A.P College.For FYBSc(IT + CS) students and No.of Beneficiaries – 60.
- 'Advanced Web Programming with C#' on 8thFebruary,2020 by Ms.JayshriParab, Assistant Professor at Lala LajpatraiCollege, for FYBSc(IT + CS) students and No.of Beneficiaries – 55.
- 'YouTube Content Development' on 18thFebruary, 2020 by Mr. Manoj Kavedia, Assistant Professor at TSEC, for FYBSc(IT + CS) and No.of Beneficiaries – 27.

Projects

Physics

Under the Guidance of Dr. Jyotsna Pandey and Mr. Tahir Rajgoli, the research projects taken by SYBSc students are -Growth of crystal using slow evaporation technique, Refractive index of liquid (salt and sugar solution) with changing concentration using spectrometer),Optical

characterization of KDP doped with Citrucilline (Amino Acid) crystals and Use of a Diode as a Clipper.

Mathematics

The research projects that are taken by FYBSc students - Vedic Mathematics by Miss NishnaParia and Miss Siddhi Daphale, Differential Equation and applications by Mr. Imran Ansari under the guidance of Mrs. Gollakota Usha HVV.

Computer Science

The research projects taken by TYBSc CS students - Blockchain and its applications, Continuous Monitoring Thermometer, Chat application based on Speech Recognition, Food Recipe Application, and Heart Beat Measuring Analysis under the guidance of teachers Ms. Geeta Brijwani and Mrs. Vimala Rani R. There were many more projects undertaken by 65 SYCS students for which presentations were shown to teachers Ms. Geeta Brijwani and Mrs. Vimala Rani R60 FYCS students showed their project presentations to MsShalini Maheshgauri.

Information Technology

The research projects undertaken by TYBScIT students - Gesture Based Robotics, Augmented Reality, Footstep power generating system, Online Classes System, IoT Health Monitoring System and Serfnet Viewerunder the guidance of teachers of the department and Industry experts. There were also many more projects the presentations for which were shown to teachers Dr.Rakhi Gupta & Ms. Pragati Thawani& industry expert, Mr. Kaushal Shah by65 SY(IT) students, and to Mr. Sagar Mehta by all FY(IT) students.

Faculty Development Programs

Physics

- **"**Use of Advanced Nanomaterial for Energy and Environmental Applications" was organized on 7th December,2019, Resource person was Dr. Pradeep Sarwade. Assistant Professor, Department of Physics, University of Mumbai, No. of Beneficiaries – 25.
- "Use of Advanced Excel for teaching Methodologies and preparation of Attendance Record" on 31stJanuary,2020 by Resource Person, Mr. Paresh Pandya, Proprietor, Creative Line Computer, Vile Parle for teachers (Interdisciplinary), No. of Beneficiaries – 20.
- "Gender and Science", a Two-Day FacultyDevelopment Programme was organized by the dept on 4th and 5thFebuary,2020, Resource Persons were Dr. Gita Chadha and Dr Chayanika Shah, No. of Beneficiaries – 27.

Mathematics

- FDP on Latex was organized jointly with Department of Computer Science, Resource Person was Mr. V. Nandagopal, School of Mathematics, TIFR on 7th February 2020, and No. of Beneficiaries – 12.
- FDP on NET & SET Examination Preparation (Mathematical Sciences) (State Level) was organized jointly with Department of Statistics, Resource Persons were Mr. Pritesh Kalan, Dr. Ganesh Phad, Dr. Nilesh Mundlik and Mr. Manish Agalave on 03rd March, 2020 and No. of beneficiaries – 33.

Computer Science

- Development of Template for Integrating Project Based-Learning into Practice, Resource Person was Mr. ShreekantShiralkar, Head – India Solution Center for SAP, Tata Consultancy Services, Advisory Member for CS and IT, on 17th July 2019 and No. of Beneficiaries – 20.
- Latex, Resource Person, Dr. V. Nandagopal, School of Mathematics, TIFR on 7th February 2020 and No. of Beneficiaries – 12.

Information Technology

- 'Use of ICT for Teaching Methodologies' on 18th December, 2019 by Mr. Gaurav Ghellani and No. of Beneficiaries – 15.
- 'Stress Management' for students, teaching staff and non-teaching staff of college and Staff of Bombay Teachers' Training College on 27thFebruary, 2020 conducted by Dr. Jaya Jayaram, Formerly Medical Officer and No. of Beneficiaries – 120.

Interdisciplinary Activity

Physics

- "Paint A Picture", a Poster competition under Scicode# 19, an interdisciplinary activity, on 22nd December,2019,for SYBSc and FYBSc students, No. of Beneficiaries – 10

Mathematics

- Training in Documentary and Short-Film Making-" SCI-SHOTS" by Mr. Cyrus Dastur, on 19th Nov,2019, for SYBScstudents across all departments (Mathematics, Physics, Computer Science and IT) and No. of beneficiaries-90.
- MATHnAPP, Students' Seminar competition was organized as a part of "SCI-CODE # 19" an intercollegiate science fest on 21st Dec, 2019 No. of teams- 6 (9 students)
- MATHnAPP, Mathematical Modelling: Poster Competition was organized as a part of "SCI-CODE # 19" an intercollegiate science fest on 21st Dec,2019 No. of teams- 4 (5 students)
- Workshop on "Group Discussion and interview skills" by Ms. Aman Kaur, on 05th Feb,2020 to 06th Feb, 2020, for TYBSc (Computer Science) and TYBA (Economics) students. No. of beneficiaries- 21.

Computer Science

- Income Tax Awareness, by Mrs. Dhivya Ruth, Deputy Commissioner of IT, Mumbai on 23rd July 2019, for SY&TY CS, IT and No. of Beneficiaries - 68.
- Personality Development – Group Discussion & Personal Interview, by Mrs. Pratibha Jha, Mr. Rajesh Patel, Mr. Ratan Gupta, ICFAI Business School, on 14th August 2019, for TY CS, IT and No. of Beneficiaries - 57.

Information Technology

- 'AI -A tool to understand Nature'for Star DBT Status department students BSc (Life-Sciences), BSc(Microbiology), BSc(BioTechnology) and Star DBT Scheme BSc(IT) and BSc(CS) students on 24thFebruary,2020 by Mr. Abhijeet Gole,Coordinator, Computer Science at Ruia College.No. of Beneficiaries -163.

- 'Subnet and VLAN' by Mr. Asif Rampurawala. Vice-Principal, VSIT on 27[th]November 2019, for FY, SY, TYBSc (IT +CS) students and No. of Beneficiaries - 100.
- 'Introduction to Unity' by Mr. Vishal Kawji, Technical general Manager, Frameboxxon 20[th]January 2020 for FY, SY, TYBSc (IT +CS) and No. of Beneficiaries -150.

Extension Activity :

Physics
- A lecture on "Research Methodology" was organized by dept for Autumn School of CPCA and SHP, Resource Person, Dr. Sunita Shailajan on 14th October,2019 No. of Beneficiaries – 102.

Mathematics
- SHP (Autumn School) Workshop on "Goal Settings for Arts and Commerce Students" conducted by Dr. Vineet Agrawal, on 15th Oct,2019 No. of beneficiaries-41.
- CPCA (Autumn School) Workshop on "Goal Settings for Science Students" conducted by Dr. Sharad Patel, on 15th Oct,2019 No. of beneficiaries- 44.
- SHP (Autumn School) Workshop on "Importance of Literature Review in Research" conducted by Dr. Mayuresh Joshi on 16th Oct,2020 No. of beneficiaries- 41.
- SHP (Autumn School) Workshop on "Research Methodology" conducted by Dr. Vivek Patkar on 16th Oct, 2019 No. of beneficiaries-41.
- SHP CPCA Modules (Autumn School) Workshop on "Advanced Communication Skills" conducted by Ms. Shweta Raina on 17th Oct,2019 No. of beneficiaries- 98
- Workshop on "Interview skills" by Ms. Aman Kaur on 06/12/2020 for S.Y.B.Sc. Students No. of beneficiaries- 20.

Computer Science
- Data Analysis using Hadoop MapReduce, by Dr. Madhavi Vaidya, Assistant Professor, VES College, Chembur, on 13th September, 2019, for TY& SY CS, IT KC College and students from Jai hind and Siddharth Colleges and No. of Beneficiaries – 77.
- Automation Testing Tools by Mr. Sunil Sabat, Associate Consultant, Capgemini, Mumbai from 19th to 21st December, 2019, for TYCS & IT, 18 students from KC and 9 students from Siddharth College and total No. of Beneficiaries – 27.
- WordPress for Autumn School of CPCA and SHP by Mr. Maunash Jani, Software Developer, Genius Lynx on 19th October 2019, for CPCA & SHP students and No. of Beneficiaries – 41 (CPCA), 44 (SHP).

Non-Teaching Activity :

Mathematics
- 'Laughter Yoga Session' on 14[th]December,2019 conducted by Mr. AatmaramTorane,Mr. Nandakishore Bhat,Mrs. Seema Bhat and No. of Beneficiaries – 14.

Information Technology

- 'Training on basic and advanced Excel' for Non-teaching Staff of college on 31stAugust, 2019 conducted by Mr.Kaushal Shah, Senior Manager at Reliance power ltd. No. of Beneficiaries – 11.

Field Visit :
Physics
- A visit to **"Mathematical Modeling Lab,ICT,Mumbai"** was organized in collaboration with Dept. of Mathematics on 3rd August,2019 for the students of SYBSc (Physics-Maths Group) and No. of beneficiaries – 25.

Mathematics
- "Mathematical Modelling: Lab Visit" to ICT, Mumbai was conducted on 03rd August,2019 with SYBScstudents, No. of beneficiaries- 30.

Information Technology
- Industrial Visit 'Aga Khan Palace, International Institute of Information Technology, Pawna Lake, Pune from 19th to 22nd February 2020 for IT students. Teacher In-Charge Mr.Sagar Mehta & Ms. NashrahGowalkar and No.of beneficiaries – 50.

Lecture Series :
Mathematics
- Lecture Series "Applications of Mathematical and Statistical Tools to Finance" was organized jointly with Department of Accountancy, from 6thto 10th August,2019 by Mr. Navin Punjabi, Ms. Jayashree Shetty and Ms. Nidhi Manchanda, Students across all streams (BCom, BSc, BA) attendedand No. of beneficiaries- 56.
- Lecture Series: "Mathematics for Actuarial Science" was conducted on 13thDecember, 2019 and 23rdDecember, 2019 by Ms. Nidhi Manchanda and No. of beneficiaries- 23.

Outreach Activity :
- One Common Outreach activity was conducted with all the Star DBT departments. A number of academic equipment, books, and appliances were supplied to Valanai Colony School, Kandivaliwhich are schools run by the Municipal Corporation of Mumbai.

Dept. of Physics :-

"Paint A Picture" Scicode#19   **FDP on "Use of Advanced Nanomaterial for**
Energy and Environmental Applications"

Mathematics

"Master Lecture": By Dr.S. G. Dani   **Lecture Series: "Applications of**
Mathematical & Statistical Tools to Finance"

Computer Science

Workshop – Node JS by Mr. Maunash Jani Software Developer, Genius Lynx

FDP – Development of Template for Integrating Project Based-Learning into Practice, Mr. ShreekantShiralkar, Head, TCS

Information Technology

Writing a Research Paper by Dr.Brijesh Singh Ms.Ashwini Kunte,Ms.Anjali Singh

FDP -Use of ICT for Teaching Methodologies by Gaurav Ghellani