Janardan Bhagat Shikshan Prasarak Sanstha's

Changu Kana Thakur
Arts, Commerce and Science College, New Panvel
(Autonomous)

Re-accredited 'A+' Grade by NAAC (CGPA 3.61)

'College with Potential for Excellence' Status Awarded By UGC
(Phase- I: 2009-10 to 2012-13 & Phase- II: 2013-14 to 2018-19)

'Best College Award' by University of Mumbai (2006-07)

Recipient of DST-FIST Grant, Govt. of India (2014-15)

Certified with ISO 9001:2015 and ISO 14001:2015
Green Certification (2015-16 to 2018-19)

|| विद्या विनयेन शोभते ||

Proposal for Financial Assistant under Component 8
(Enhancing Quality and Excellence in Select Autonomous Colleges)

Submitted to

Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

Index

Detailed Project Report

Component Number 8: Enhancing Quality and Excellence in Select Autonomous Colleges

A) Profile of the College

Baseline Data

Sr. No.		Information / details	
a.		**Details of the Autonomous College**	
	i.	Name:	Janardan Bhagat Shikshan Prasarak Sanstha's Changu Kana Thakur Arts, Commerce and Science College, New Panvel
	ii.	Address:	Plot No.1, Sector-11, Khanda Colony, New Panvel (West), Taluka-Panvel, District-Raigad, Pin-410206
	iii.	Location (Metropolitan / Non-metropolitan / Non-urban	Metropolitan

	iv.	Contact details of the Principal, Registrar and a Nodal person identified for this purpose. (Name, designation, landline, mobile, fax, email):	**Prof. (Dr.) Vasant D. Barhate**
			Principal
			Land Line : 022-27464193 / 27455760 / 27467599
			Mobile : 8652188905
			Fax : 022-27461569
			Email : 1. principal@ckthakurcollege.net
			         2. principalckthakurcollege@rediffmail.com
			
			Mr. Vajekar Shailesh Namdev
			Nodal Person
			Land Line : 022-27464193 / 27455760 / 27467599
			Mobile : 9867296850
			Fax : 022-27461569
			Email : 1. shaileshchem81@gmail.com
			        2. cktcollegerusa@gmail.com

Changu Kana Thakur Arts, Commerce and Science College, New Panvel, a multi-faculty premier institution of higher learning, with an enrolment of more than 4,000 students (for UG, PG and Research Programmes). The College is spread over an area of 06 acres of land in the prime location of Panvel city and developed as an eco-friendly campus.

The college is established on September 26, 1997 by Janardan Bhagat Shikshan Prasarak Sanstha, Panvel under the visionary leadership of charismatic and benevolent mass leader **Hon'ble Shri. Ramsheth Thakur (**Former Member of Parliament and Chairman, J.B.S.P. Sanstha, Panvel)**.**

The college has been permanently affiliated with the University of Mumbai on January 12, 2006 in the academic year 2005-2006. The college has received a status of 2(f) and 12(B) from University Grants Commission, New Delhi on August 24, 2006 in the academic year 2006-2007. The College has been re-accredited (3rd Cycle) by NAAC and awarded '**A+**' Grade with CGPA 3.61 in October 2017.

The college has committed itself to provide quality education to all strata and becoming the centre of excellence in the process of facilitating effective teaching and learning with several career-oriented traditional and specialty programmes. The college offers 13 undergraduate, 14 post-graduate and 07 Ph.D. research programmes. It also offers 15 remedial, 12 bridge, 21 certificates, 08 diplomas and 01 post-graduate diploma programme. The college has highly qualified, devoted and committed faculty. More than 60% of them are engaged in various research activities.

Changu Kana Thakur Arts, Commerce and Science College has a vibrant work culture. A holistic approach to education is encouraged. The teaching-learning process is supported by the use of ICT, interactive exercises, projects, assignments, etc. in addition to the chalk and talk method. The results have always been higher than the University's average results. In extra-curricular activities including NCC, NSS and Sports etc., the performance of students is excellent. Every year few students of our college figure in the University merit list.

Research is an integral part of teaching. 18 of our faculty members are Ph.D. guides and 39 students have registered under the guidance of faculty at the institution. Many are working on research projects and have published a number of research papers in national and international peer-reviewed journals.

The College has two NCC Units - Army (Boys) and Army (Girls) with an enrollment of 104 cadets. To coordinate the NCC activities at our college, there are two Associate NCC officers. Along with NCC parade, cadets also participate in various social awareness activities like cleanliness drive, tree plantation, awareness regarding drug abusement, traffic control, and road safety awareness. Almost every year our cadets participate in various camps namely Republic Day Camp, Thal Sainik Camp, Combine Annual Training Camp, National Integration Camp, and Scuba Diving camp. It is our pride that one of our cadets was selected in Mountaineering Camp and could complete 1570 ft at -50° C temperature.

Our students participate in various sports events every year and they have bagged medals in Handball, Wrestling, Ball Badminton, Athletics, Weightlifting and Powerlifting at University level, State level and National level.

We, at Changu Kana Thakur Arts, Commerce and Science College, stand committed to the cause of higher education, catering to the diverse needs of the students and enabling them to develop as intellectually alive and socially - responsible citizens ready for continuous and professional growth.

We encourage our students to participate in Poster, Model, and Elocution and Essay completion under the umbrella of science association.

To groom the research aptitude among the students, the college motivates students to participate in 'Avishkar Research Convention', a research festival conducted by University of Mumbai. All faculties are encouraged to actively engage with learners in Avishkar Research Convention, by facilitating brainstorming sessions, helping learners choose their projects, guiding them through every stage of the project, help them prepare presentations, honing their presentation skills, thereby helping the compete effectively at every level of the competition.

We inculcate the importance of research in the young minds of our N.S.S. volunteers and guide them to undertake community-based research projects. The outcomes of these projects are published in our college level research journal 'Anugoonj' with ISSN 2348-9731. It is published every year since 2011-12 to date.

In the span of 22 years, the college has brought up following laurels because of its holistic development and excellence in academics, cultural, sports, social and research activities at University, State as well as National levels.

Glorious Achievements of the College

- 'Autonomous' status by University Grants Commission (2019-2020 to 2028-2029)
- Re-accredited 'A+' Grade by NAAC with CGPA 3.61 (2017-2018 to 2023-2024)
- Re-accredited 'A' Grade by NAAC (2012-2013 to 2017-2018)
- Accredited 'A' Grade by NAAC (2005-2006 to 2010-2011)
- 'College with Potential for Excellence' Status Awarded by UGC
  (Phase- I : 2009-2010 to 2012-2013 & Phase- II : 2013-2014 to 2018-2019)
- 'Best College Award' by University of Mumbai (2006-2007)
- ISO 9001:2015 (Quality Management System) (2015-2016 to 2017-2018)
- ISO 14001:2015 (Environmental Management System) (2015-2016 to 2017-2018)
- Green Standard Certification (2015-2016 to 2017-2018)
- 'Lead College' Status by University of Mumbai (2011-2012)
- 'FIST Grant' by Department of Science and Technology (DST), Government of India to Department of Chemistry and Department of Microbiology (2014-2015)
- Seventeen Merit Rankers at University of Mumbai
- 'Best N.S.S. Unit Award' by University of Mumbai (Four times) (2002-2003, 2006-2007, 2007-2008, 2012-2013)
- 'Best N.S.S. Programme Officer Award' by University of Mumbai (Twice) (2006-2007, 2007-2008)
- 'Best N.S.S. Volunteer Award' by University of Mumbai (Twice) (2005-2006, 2006-2007)
- 'Overall Championship Trophy' for Avishkar Research Convention, University of Mumbai (Eight times) (2009-2010, 2010-2011, 2011-2012, 2012-2013, 2014-2015, 2015-2016, 2016-2017 and 2017-2018)
- 'Overall Runner Up Championship Trophy' for Avishkar Research Convention, University of Mumbai (2013-2014)

- 'Overall Championship' for Youth Festival Organized University of Mumbai (2017-2018)
- 'Overall Runner Up Championship Trophy' for Cultural Youth Festival, University of Mumbai (2009-2010)
- National, State, University, Zonal and District Level Prizes in Cultural, Sports and Research Activities

Executive Summary/ Need Analysis

Introduction

Changu Kana Thakur Arts, Commerce and Science College, New Panvel was established in 1997. It is named after Late Shri. Changu Kana Thakur Saheb a person who always walked on the path of goodness. The foundation of the college was laid by Hon. Shri. Ramsheth Thakur Ex. M.P. and renowned social leader.

In the span of 19 years, the college has brought up number of laurels because of its holistic development and excellence in academics, cultural, sports, social and research activities at the University, State as well as National levels. Our remarkable achievements are:

Accredited 'A' Grade by NAAC (2005-2006 to 2010-2011), Re-accredited 'A' Grade by NAAC (2012-2013 to 2017-2018), Re-accredited 'A+' Grade by NAAC (2017-2018 to 2023-2024), 'College with Potential for Excellence' status awarded by University Grants Commission (2009-2010 to 2012-2013) and continued for second phase (2013-2014 to 2018-2019), 'Best College Award' by University of Mumbai (2006-2007), ISO 9001:2008 (Quality Management System) (2015-2016 to 2017-2018), ISO 14001:2004 (Environmental Management System) (2015-2016 to 2017-2018), Green Standard GSCP-01-2010 of Green Standard Certification Programme (GSCP) (2015-2016 to 2017-2018) and 'Lead College' status awarded by University of Mumbai (2011-2012)

Renovation/ Upgradation

a) Lab equipment:

Presently college is running Under Graduates and Post Graduates Programmes in some departments and has the lab equipment facilities to complete the experimental part of their curriculum. Some of these departments want to introduce new experiments, modules and programmes. Whereas, some departments want to increase the intake capacity at PG and Ph.D. level. To fulfil these needs, the college has allocated Rs.90 lakh for purchase of new equipment for science laboratories and equipment and software for language laboratory.

b) Computer Centre:

The college has 11 computer laboratories with 275 computers and 01 Interactive Language Laboratory with 31 Computers having broadband connectivity. To meet the ICT needs of the learners, we need to provide licensing of new software etc. Presently the college has UG and PG courses in Computer Science and Information Technology. For these programmes college has sufficient number of computers and software. Besides this, college also has a computation laboratory and computer lab for commerce. These computers need to be upgraded with systems and application software. Some departments of science are willing to introduce modules in the curriculum which extensively require computers and specific software. We are going to replace the old computers and procure new computers with advanced configuration/ version (Intel Core i5, 8th Gen, RAM 16GB, 1TB Hard Disc, 46.99 cm screen, Windows 10).

The estimated cost for the same is Rs. 45.00 lakhs.

Entrepreneurship Cell and Career Hub

The entrepreneurship and career hub at our college will identify valuable resources and services that faculty and counsellors can use to provide career awareness, career information and career planning for the students. The cell will play important role in nurturing, training and establishing the start-ups. We will establish the centre by providing a special room with adequate infrastructure like computer, internet etc. We will organize workshops, seminars and lectures to foster the need of learners for skill-oriented projects. We plan to provide seed money to support the startups/projects. We have proposed Rs. 50 lakhs to establish Entrepreneurship Cell and Career Hub from RUSA grants

B) Excellence Financial breakup

Part-I Hard component

Facility Type	Financial value (Rs. in lakh)	Justification
Laboratory Equipment a) Science Laboratories Equipment b) Language Laboratory Equipment/Software	90	a) To promote Interdisciplinary research b) To enhance quality of research c) To provide each facility to individual learner
Computers	45	a) To replace the old computers and procure new computers with advanced configuration/ version (Intel Core i5, 8th Gen, RAM 16 GB, 1TB Hard Disc, 46.99 cm screen) b) Licensing to new software c) To conduct IT based practicals d) To provide each facility to individual student
TOTAL	**135**	

Part-II Soft component

Facility Type	Financial value (Rs. in lakh)	Justification
1) Seminars/ Workshops/ Conferences	50	Organization and deputation of teachers to e-content development workshops/Seminar/ Workshop/Conference *Details on Page No. 12-13*
2) Training programmes for Students	20	Conduct of Job oriented Skill Development Training Programmes for • Students of our college • Students of three Model Degree Colleges in Raigad, Ratnagiri and Sindhudurg districts of Maharashtra
3) Training programmes for Teachers	18	• Organization and deputation of our teachers to Induction programmes, Refresher and Orientation programmes • Organization of training programmes for the teachers of three Model Degree Colleges in Raigad, Ratnagiri and Sindhudurg districts of Maharashtra
4) Training programmes for Non-Teaching staff & office staff	05	• Organization and deputation of Non-Teaching staff & office staff of our college to Induction programmes, laboratory safety programmes and office administration programmes

		• Organization of training programmes for Non-Teaching staff & office staff of three Model Degree Colleges in Raigad, Ratnagiri and Sindhudurg districts of Maharashtra
5) Seed money for Research Students	25	• To inculcate the research culture among the students • To increase their participation in research Seminars/ Workshops/ Conferences *Details of Projects on Page No. 13-15*
6) Seed money for Research Teachers	40	• To encourage the teachers to initiate the research projects • To provide the financial support for filing patents & publication of research papers *Details of Projects on Page No. 15-17*
7) Honorarium to researchers	25	• To encourage the research students & research guides to increase and promote the research with excellence in quality
8) Academic software	30	• Installation of RFID technology and Access Control System in Library • Procure SciFinder software for research
9) Exposure visits	20	• Organization of Industrial visits for students and teachers for enriching them with the practical insights of different industries. So that they can correlate this exposure with their theoretical knowledge.
10) Scholarships/Fellowships	30	• Scholarships/Fellowships to students which are needed to support the poor students • To encourage & support the meritorious students to upgrade the academic standard
11) Introduction of new skill development courses	20	• Initiation of placement oriented courses like communication skills, personality development, C-DAC etc.
12) Mentoring other institutions for accreditations	02	• To provide the guidance & training to non-accredited colleges for their accreditation of NAAC and subsequently undergoing for autonomous status.
13) Development of E-content	08	• To encourage the teaching staff & students to develop e-content/software/MOOCs • To develop online administrative programmes for good governance • Upgradation of website
14) Environmental Consciousness	07	• To create awareness and initiates steps for Environmental Consciousness such as cleanliness, water pollution, execution of environmental audit, energy audit & green certification
15) Students' exchange programmes	05	• A study program in which students pursue education at other state/international institution and/or students from other

		state/international institution will be allowed to study here.	
16) Health, sport and well being	**10**	• Starting-up of Yoga centre • Equipment/Facilities for gymkhana	
TOTAL	**315**		

Details of Seminars/ Workshops/ Conferences

Sr. No.	Name of the Department	Title of the event	Financial value (Rs. in lakh)	Date
1	Chemistry	International Conference on "Emerging Trends in Chemical Sciences"	6	December-2019
2	Microbiology/Biotechnology	Interdisciplinary International Conference on "Contemporary Issues in Biosciences"	6	January-2020
3	Information Technology/ Computer Science	Interdisciplinary International conference on "Emerging Technologies : Big Data, IoT, CPS with Sensory System"	6	February- 2020
4	Commerce/Management Studies	Interdisciplinary International conference on "Recent trends and development in commerce and management in an era of digitalization : challenges and opportunities"	6	January-2020
5	Hindi	International conference on "हिंदी और मराठी दलित साहित्य में शोषण की समस्या"	6	February- 2020
6	English	International Conference on "Recent Trends in Comparative Literature, Culture and its Reflection in literary Text"	6	February- 2020
7	Geography/Economics/Rural Development	Interdisciplinary National Conference on "Globalization and it's impact on Environmental change and Rural Development"	3	February- 2020
8	Marathi	National Conference	3	January-2020
9	Library	IQAC workshop on "Use of e-content development tools and techniques in teaching and learning process"	1	February- 2020
10	IQAC	IQAC workshop on "Administration of Learning Management System"	2	November-2019
11	IQAC	IQAC workshop on "Data organization in revised accreditation framework of NAAC"	1	December-2019

12	Chemistry	One Day Awareness Workshop on "Intellectual Property Rights-2019 (IPR-2019)"	0.5	December-2019
13	Biotechnology	A seminar on "Intellectual property rights and patent"	0.5	January-2020
14	Office	Workshop on "Office management system"	2	February- 2020
15	Office	Workshop on "Staff training programme"	1	December-2019

Details of Research Projects of M.Sc. students - Microbiology

Sr. No.	Name of the Student	Title of the Research Project	Duration
1	Ms. Karel Aqsa Akbar	Isolation and characterization of thermostable amylase producing bacteria from environmental samples and its application	September-2019 to March-2020
2	Ms. Debnaath Bhagyashree Ajaykumar	Immobalization of titanium dioxide based nanoformulation for enhancement of plant growth under abiotic stress	September-2019 to March-2020
3	Mr. Devar Anand	Isolation and characterization of biosurfactant producing bacteria	September-2019 to March-2020
4	Ms. Kadam Aishwarya Ravindra	Isolation of micro-algae from various ecological niches for production of secondary metabolites with nutritional value	September-2019 to March-2020
5	Ms. Korgaonkar Akshaya Ajit	Isolation and Characterization of urease and carbonic anhydrase producing bacteria from mangroves of panvel tehsil and their role in calcite precipitation	September-2019 to March-2020
6	Ms. Mahulkar Harshala Vidyadhar	Isolation and characterisation of Actinomycetes derived bioactive compound with antagonistic activity against biofilm producing bacteria and its use in formulation of mouthwash	September-2019 to March-2020
7	Ms. More Mrunmayi Bharat	Isolation, Characterization & Purification of Coagulant Protease from Microbial Isolate of Mangrove Ecosystem	September-2019 to March-2020
8	Ms. Raote Nehal Mahendra	Isolation and characterization of biocellulose producing bacteria from Mansarovar Mangroves and their use	September-2019 to March-2020
9	Ms. Shaikh Nehrin Niyaz	Isolation of halophilic bacteria and study of their protease with respect to enzyme kinetics and applications	September-2019 to March-2020
10	Ms. Salunkhe Pradnya Dhananjay	Synthesis and characterization of zinc nanoparticles and it's hydrogel preparation for eradication of biofilm	September-2019 to March-2020
11	Mr. Bambare Pravin Suresh	Isolation, characterisation and screening of alkaliphilic actinomycetes and its application	September-2019 to

			March-2020
12	Ms. Sidhu Ritinder kaur	Isolation and characterization of ectoine producing halophilic plant growth promoting rhizobia and their effect on plant growth promotion and disease suppression	September-2019 to March-2020

Details of Research Projects of M.Sc. students - Biotechnology

Sr. No.	Name of the student	Title of the Research Project	Duration
1	Ms. Tekalkar Siddhi Ashok Mr. Dere Tushar Balu	Isolation and characterization of bacteriocin producing bacteria from Panvel marine environment	September-2019 to March-2020
2	Ms. Chauhan Jagriti Mr. Deshmukh Akshay Ganesh	Isolation, characterization of potent phosphate and silicate solubilizing bacteria from the agricultural soils in Raigad region	September-2019 to March-2020
3	Mr. Gupte Kshitij Ashish Ms. Patil Prajkta Arjun	Production of novel microbial exopolysaccharides (EPS) involves in biofilm formation to develop an ecofriendly heavy metal remediation strategies	September-2019 to March-2020
4	Mr. Yeshikar Bhavesh Bhalchandra Ms. Bansode Reema Babaji	"The potential effect of Neutraceutical on heart rate of Daphnia"	September-2019 to March-2020
5	Ms. Promita Shrimant Nadu Mr. Patil Vaibhav Balvant	Effect of metal oxide nanoparticles to alleviate abiotic stress in vegetable crops	September-2019 to March-2020
6	Ms. Sirkhot Lama Inayet Ms. Kokane Neha Bahnudas	Synthesis of nano-herbal composite formulation as seed coating and testing of its efficacy in seed storage and preservation	September-2019 to March-2020
7	Mr. Bogati Mahesh laokbahadur Ms. Wakhare harshali Keshavrao	Comparative studies between *Moringa oleifera* extract & *Moringa oleifera* synthesized ZnO nanoparticle on plant growth.	September-2019 to March-2020

Details of Research Projects of M.Sc. and Ph.D. students- Chemistry

Sr. No.	Name of the student	Title of the Research Project	Duration
1	Ms. Salve Amruta Mohan	One pot efficient Synthesis of benzimidazoles using Organo-metallic catalyst under solvent free conditions	September-2019 to March-2020
2	Mr. Chavan Ganesh Ravindra	Multi component Synthesis of 3,4-Dihydro pyrimidin-2(1H)-ones using solid supportive catalyst	September-2019 to March-2020
3	Ms. Hambir Mayuri Janu	Green Methodologies of Heterocyclic Organic Synthesis using nano-crystaline metal oxide as a catalyst	September-2019 to March-2020

4	Mr. Tupe Saurabh Kishore	One pot Synthesis of Glycouril Derivatives via condensation of Benzil and Urea or Thiourea using nano-crystaline metal oxide as a catalyst	September-2019 to March-2020
5	Mr. Gaikwad Abhay	Synthesis and characterization of 4-(4-methoxyphenyl)-5-phenyl-1,2-dihydropyridazine-3,6-dione	September-2019 to March-2020
6	Ms. Devadkar Sunita	Synthesis and characterization of 4-(4-hydroxyphenyl)-5-phenyl-1,2-dihydropyridazine-3,6-dione	September-2019 to March-2020
7	Mr. Jambhale Tushar	Synthesis and characterization of 4-(4-methylphenyl)-5-phenyl-1,2-dihydropyridazine-3,6-dione	September-2019 to March-2020

Details of Research Projects to be undertaken by Faculty

Sr. No.	Name Of The Faculty	Title of the Research Project	Duration
1	Nilesh Eknath Koli	The study of income and expenditure account and its analysis of Navi Mumbai Municipal Corporation	November-2019 to March-2021
2	Subhash Ishwar Unhale	Comparative analysis of pipeborne water and other sources of water within panvel city for human consumption	November-2019 to March-2021
3	Nilesh C Vadnere	Isolation of Efficient Exopolysaccharide Producing Bacteria and Studies on It's Eco-Friendly Applications.	November-2019 to March-2021
4	Nilima Pradeep Tidar	Isolation Screening and Characterisation of cellulase producing bacteria and its potential application	November-2019 to March-2021
5	Archana Nishant Gandharkar	Comparative analysis of pipeborne water and other sources of water within panvel city for human consumption	November-2019 to March-2021
6	Ratnaprabha D Mhatre	A research study from a historical perspective on the architectures in Raigad District	November-2019 to March-2021
7	Elizabeth Mathews	Study of New Normal and Financial Stability of Faculty in Higher Education Institutions during COVID -19 Pandemic situation: Challenges and Opportunities	November-2019 to March-2021
8	Sudhakar B Yadav	A Study Of Application Of Green Accounting In Private Company At Taloja MIDC	November-2019 to March-2021
9	Ramakant A Navghare	Awareness, Use and Building of Institutional Digital Repository in 'Autonomous' Colleges in Raigad District of Maharashtra	November-2019 to March-2021
10	Sanjay Kaluram Patil	*Extraction and characterization of flavored tobacco by GC-MS studies and validation of results by GC-FID in order to investigate the hazardous flavor ingredients.*	November-2019 to March-2021

11	Rajesh Vishnu Yeole	Comparative Study of Indian and Afghan Under-Graduate Students Challenges in Learning English as a Second Language	November-2019 to March-2021
12	Shailesh Namdev Vajekar	Fe_3O_4 Silica Sulphuric acid Nano catalyst promoted one pot three component greener rate to novel H-H pyridazino [1,2a] indazole triones under solvent free conditions.	November-2019 to March-2021
13	Seema S Kokitkar	Management of local fish waste by turning it into a valuable organic fertilizer: An eco-friendly Approach	November-2019 to March-2021
14	Balasaheb Dagadu Aghav	Preparation, characterization and use of metal doped ceria and ceria nanoparticles in the synthesis of heterocyclic compounds.	November-2019 to March-2021
15	Rajendra Onkar Parmar	A study of Morphometry of Gadhi and Kasadi River Basin : A geographical representative for Watershed Management	November-2019 to March-2021
16	Bhagwan Vitthal Jadhav	Synthesis and characterization of CdNiSe thin films for photoelectrochemical Solar Cells	November-2019 to March-2021
17	Jyotsna Shrikant Thakur	Soil Testing and Study of Agricultural and Nutrient Application Practices in Panvel Tehsil	November-2019 to March-2021
18	Kamble Vishal Suresh	Preparation and Characterization of metal doped zinc oxide nanostructures for hazardous gas sensors and applications.	November-2019 to March-2021
19	Bhandare Uddhav Tukaram	Baartlya yauvaaAaoM pr saaoSala maIiDyaa ka p`Baava	November-2019 to March-2021
20	Pratibha Mangesh Jadhav	An expert system for Sanskrit grammar	November-2019 to March-2021
21	Parkale Suryakant Narayan	Mapping the Caste and Gender Discrimination in the select autobiographies of Dalit Women	November-2019 to March-2021
22	Trupti Mandar Joshi Dr. Elizabeth Mathews	Awareness and Utilization of Digital Wallets among residents of Navi Mumbai	November-2019 to March-2021
23	Patil Balasaheb S	Implications of contractual appointment on employees appointed under the RBSK programme in Raigad District	November-2019 to March-2021
24	Ajay Kamlakar Dixit	"A SOCIO-ECONOMIC STUDY OF TRIBALS IN RAIGAD DISTRICT"	November-2019 to March-2021

Details of Research Projects to be undertaken by Ph.D. Students

01	Sachin Chandrakant Pimple	Study of financial literacy knowledge of the students of Arts, Commerce & Science Colleges from Raigad, Ratnagiri & Sindhudurg districts affiliated to University of Mumbai	November-2019 to March-2021
02	Vanshika Shyam Manglani	An Analytical study on telecom companies with respect their accounting practices and impact on society	November-2019 to March-2021
03	Maheshwari Rajesh Zirpe Dr. Jyotsna Thakur	Synthesis, Characterization of Nanocompositefor Removal ofCationic and Anionic Dyes from Water: Determination of Equilibrium and Kinetic Parameters(ii)Introduction:	November-2019 to March-2021
04	Jyoti Udaynath Anand Panda	Effect of working from home on employees, due to Covid-19, with reference to selected Digital Media Marketing Agencies	November-2019 to March-2021
05	Shubhangi Madhukar Kedare Dr. E. Mathew	"Passengers Perception towards services provided by Mumbai Suburban Railways with Special reference to Central Lines"	November-2019 to March-2021
06	Gayatree Vishal Shinde	Fe-Based Nano-catalyst: Green Synthesis Approach to prepare Heterocyclic Scaffolds	November-2019 to March-2021
07	Shoba Kamala James Dr. Elizabeth Mathew	"An empirical study on banking and customer experience during Covid-19 in navi mumbai region."	November-2019 to March-2021
08	Bhushan Sadanand Gharat Dr. U.T. Bhandare	Bhishma Sahani ke upanyasome abhivyakt Manavtavad	November-2019 to March-2021
09	Tushar Shivaji Umasare Dr. S.K. Patil	Synthesis, Spectral Characterization and Antimicrobial activity studies ofAcenaphthaquinone Schiff Base and its transition metal complexes.	November-2019 to March-2021
10	Baliram Tukaram Vibhute	Mobilization and Financial Analysis of Octroi / Local Body Tax Collection Department of Kalyan - Dombivli Municipal Corporation	November-2019 to March-2021
11	Amruta Mohan Salve Dr.V.D.Patil	Effective synthesis of medicinally important Scaffold of Heterocyclic Compounds with the help of Nano-catalyst	November-2019 to March-2021
12	Kamini Pawar	Preparation of Bismuth from oxide BiFexOy/rGO Electro catalysis application.	November-2019 to March-2021

Part-III Entrepreneurship Cell & Career Hub

Component Type	Facility Type	Financial value (Rs. in lakh)	Justification
Hard component	**Incubation & Innovation Centre** a) Furniture, fixtures etc.	15	• To create necessary infrastructure to incubate and innovate the new ideas put by learners having industrial applications
Soft component	**lectures/seminars/ workshops** a) Organization of lectures/seminars/ workshops related to placement purpose	35	• Professional Training to Students, Conduct of pre-placement training, Organisation of Placement Activities, Formation of MoUs with Industries
	TOTAL	**50**	

D) Proposed five-ten year Strategic Plan (for each year):

a.	An academic plan showing the courses proposed and a research plan focusing on current thrust/niche area(s) of expertise and proposed plan in pursuit of excellence in those areas.

Academic Plan:

In initial phase of autonomy, efforts will be made to strengthen existing Programmes/Courses with suitable changes in the curriculum at UG and PG level. All these Programmes/Courses will be under CBCGSS and will be supplemented by innovative teaching–learning methods. Several short term career oriented 'Add-on' certificate courses in every semester will be introduced.

A. U.G. Programme:

1. B.Sc. in Zoology from Academic Year 2019-20

B. P.G. Programmes:

1. M.Sc. in Environmental Science from Academic Year 2020-21
2. M.Com. in Accounting and Finance from Academic Year 2020-21
3. M.A. in Geography Academic from Year 2025-26

C. Research Programmes:

1. Ph.D. in the subject of English from Academic Year 2020-21
2. Ph.D. in the subject of Economics from Academic Year 2020-21
3. Ph.D. in the subject of Analytical Chemistry from Academic Year 2020-21

D. Diploma Courses

Academic Year 2019-20		
1. Applied Biotechnology	2. Advanced Communicative English	3. Corporate Professionalism
Academic Year 2020-21		
1. Voice Culture and Light Music	2. New Horizons of Drama	3. Capital Market Part-1
4. Capital Market Part - 2	5. Banking and Finance	
Academic Year 2021-22		
1. Bio analytical techniques	2. Soft Skills	3. Financial Market Mgt.

E. Certificate Courses

Academic Year 2019-20		
1. Event Management	9. Rural Development	17. Basics Bio-Physics
2. Government	10. Applied Biotechnology	18. Web Development

Accounting		
3. B.R. Ambedkar Thoughts	11. Spoken English and Voice Modulation	19. Certified Tax Accountant Plus
4. Voice Culture and Light Music	12. Communicative English	20. SAP ERP Fico
5. New Horizons of Drama	13. Professional Proficiency	21. Advance Technology
6. Basic Computer Applications	14. Functional Proficiency in English	22. Clinical Research and Data Analysis
7. Fundamentals of Finance, Human Resource and Marketing	15. Phonetics and Phonology	23. Modi lipi
8. Yoga for women	16. Communication Skill in English	24. Bhashan kala
Academic Year 2020-21		
1. Sericulture	6. Research Skills Part-I	11. Indian Coinage
2. Fishery Management	7. Students Social Responsibility	12. Student research paper presentation part-II
3. Jewellery Making	8. Mathematical Physics	13. Entrepreneurship development programme (EDP)-Beginners
4. Soil Science	9. Export Import Management	14. Sendriy sheti
5. Web site designing with Joomla	10. Enzyme Technology	15. Anuwad
Academic Year 2021-22		
1. Tour Management	7. Compensation Management	13. Personality Development
2. Mobile / Smart Phone Safety	8. Production and Inventory Management.	14. Ceramics
3. Export Import Procedure and Documentation	9. Financial Risk Management	15. Vyavaharik marathi
4. Recent Trends in Banking and Insurance	10. Entrepreneurship Development Programme Advanced	16. Abhinay kala
5. Recent trends HRM	11. S.H.G. (Rural Development)	
6. Entrepreneur-ship Development Programed-Intermediate	12. German Language	

Academic Year 2022-23		
1. Sophisticated Instrumentation	3. Bioinformatics	5. French Language
2. Station Tools and Techniques	4. Creative Writing	6. Lekhan kaushalya
7. Geographical Information System		

Academic Year 2023-24		
1. Cinematography	3. Searching tools & techniques	5. Marathi bolibhasha
2. Business English	4. Bioinformatics	

Academic Year 2024-25	
1. Social media etiquettes/ Digital footprint	3. Bhashantar-Hindi Engraji Madhyam
2. Employability Skills	4. Samachar nivedak kala

Academic Year 2025-26	
1. Copyright/ IPR/Patents	3. Vrutta nivedak
2. E-Shikshan	

Academic Year 2026-27	
1. Plagiarism	3. Vruttalekhan
2. Image Enhancement	4. Sarkari yojana

Academic Year 2027-28	
1. Digital Learning	3. Abhinay kaushalya
2. Banner printing	

Academic Year 2028-29	
1. Cyber Law	3. Marathi bodhchinna yojak
2. Photoshop	

F. Remedial Courses

Academic Year 2019-20		
1. Bio Chemical Pathways	3. Elements in Cost Accounting and Financial Management	5. Basic Chemistry
2. Fundamental Physics	4. Elementary Botany	

Academic Year 2020-21
1. Analytical Techniques
Academic Year 2021-22
1. Political Science

G. Bridge Courses

Academic Year 2022-23		
1. Dance	4. Microbial Studies	7. Conversational English
2. Fine Art	5. Microbial Techniques	8. Business English
3. Soft Skills	6. Mathematical and Statistical Techniques	9. Language Skills in English
Academic Year 2027-28		
1. Genres of English Literature		

b.	**A faculty recruitment policy and plan to meet the academic plan requirements and to achieve 1:10 faculty-students ratio.**
	The college has formulated comprehensive strategies in planning and management of human resource keeping in mind the high quality teaching learning deliveries for creation, enhancement and sustenance of quality in academic state of affair of the college. More specifically the strategies are explained as under:- • **The strategies of the college for the requirement of faculty** Recruitment of teachers is a statutory process and carried out as per the guidelines of University Grant Commission (UGC), Government of Maharashtra and University of Mumbai. The process of recruitment of teachers is a process completed in step-by-step manner which can be enumerated as under- ▪ Commutation of Vacancies ▪ No Objection Certificate ▪ Approval of Draft Advertisement ▪ Publication of Advertisement for Inviting the Applications ▪ Scrutiny of Applications and Issue of Interview Calls

- Constitution of Selection Committee
- Conduct of Interview
- Approval to the Selection Committee Report
- Issue of Offer Letters
- Approval to the Appointment

The Management of our college has kept the merit of the candidate, as a sole criteria for recruitment, so at present, we have qualified and competent faculty at our college.

With the growth of institution, the diversity of the incoming students has been increased. The institute attracts the learners and facilitates them with quality education. Thus the recruitment of the faculty with suitable qualification and experience will be given a profound importance. The main domains of the recruitment process will be need-identification, recruitment, training and development and performance evaluation. The institute has evolved a system of local appointment over the years. The qualified and experienced faculty will be appointed in order to avoid academic loss of the students. The quality of faculty will not be compromised and faculty with high qualification and experience will be preferred and offered attractive salary.

The process of recruitment of faculty at institute level is completed in step-by-step manner enumerated as under-

- Communication of Vacancies to the Principal
- Computation of Number of Posts Required
- Invitation of the Applications
- Scrutiny of Applications and Issue of Interview Calls
- Constitution of Selection Committee
- Conduct of Interviews
- Approval to the Selection Committee Report by Management
- Issue of Offer Letters
- Acceptance of Offer Letter by Candidates
- Conduct of the Demo Lectures
- Report by Head of the Department
- Issue of Appointment Letters
- Acceptance of Appointment Letter by the Candidates

	• **1:10 faculty-students ratio:** To achieve 1:10 faculty-students ratio, the institute has a plan to ▪ Appoint adequate and qualified faculty ▪ Start more programmes ▪ Provide more elective options The Management has formulated a policy guideline for appointing temporary teaching staff in the absence of the regular appointment of teaching staff; owing to the UGC guidelines and government policy till the regular appointments are made. The management has also taken a policy decision to invite honorary/visiting faculty/expert /guest faculty on the need basis in the best academic interest to avoid academic inconvenience and discomfort to both students and the institution. The college has been granted Autonomous status by UGC. As per the UGC guidelines and notification for autonomous institutions the various bodies like Governing body, Academic Council and Board of Studies (Subject wise) will be constituted to execute the academic plan. Efforts will be made to strengthen the curriculum with inclusion of skill development, interdisciplinary approach and professional development of the students in phase manner.
c.	**The proposal, if any, to recruit faculty from industry, Government, Non-profit Organizations, etc. including foreign faculty.**
	The institute recognizes that faculty is the vital role in development of academic ambience of institute. So the institute makes continuous effort to appoint qualified faculty as per the guidelines led down by University Grants Commission. However, consequent to the increase in industry demand and global competence, the institute may have proposal to recruit faculty from industry, NGO, foreign faculty etc. on visiting basis to meet the demand of industry and competence among the students. Visiting faculty/ Guest faculty are invited to deliver special lectures for aided and self-finance programmes. Workshops, conferences and seminars are organized on recent/emerging trends where experts from industry/institutions of national and international reputes are invited. Efforts will be made to invite international faculty in different subjects.
d.	**Student admission policy mentioning the plan to select Indian and foreign students.**
	The institute follows well defined, transparent admission policy based on merit coupled with reservation policy of Government of India and Government of Maharashtra. Our admission policy is inclusive and will be strengthened and followed stringently to select Indian and foreign students. Admission guidelines and fee structure and detailed information about each programmes/ courses is

communicated through information brochure and made available on college website, notice board, flex banner etc.

- A selection criterion for admission to the various courses is as follows-
  - **General Programmes**
    - For all general programmes and courses the students are selected on the basis of merit and adherence of reservation policy of government from time to time.
    - For M.A. English Literature (Part I) the students who have completed their graduation in the subject other than English are selected through the entrance test.
    - For Ph.D. degree programme students are selected by Ph.D. Entrance Test (PET), gazetted notification of Government of India, UGC regulations and interview.
  - **Specialty and Skill oriented programmes**
    - For all specialty and skill oriented programmes, the students are selected on the basis of merit and adherence of reservation policy of government from time to time.
  - **Certificate and Diploma Programmes**

    The process of admission for certificate and diploma programmes is on the basis of interest of the students and number of seat available. The admissions are open to all eligible students till the seats are filled.

e.	**Does the college have a plan to provide scholarship to meritorious Indian and foreign students.**

- The College makes available through its administrative office, Open Merit Scholarship offered by the Government of Maharashtra to eligible candidates who have secured above 60% marks in their Higher Secondary Certificate examination or Graduation Degree examination.
- The Social Welfare Department of Government of Maharashtra also provides Scholarship to the students belonging to Backward Class as per rules and regulations.
- The College provides fee concession (partial) to the needy and deserving students and also allows them to pay fees in instalments.
- The College plans to provide scholarship/ tuition fee waiver to meritorious students.
- The College plans to provide financial assistance/ support to students to undertake the research projects.
- The College intends to provide fee concession to the achievers in Co-curricular and Extra-curricular activities.
- It has been decided by the Management that if any student who secures first, second or third merit

	positions in the University Merit List at Degree Examination, in any faculty will be sponsored by the Management for post graduate education. • Till date, no scholarship has been granted to any foreign student.
f.	**A comprehensive plan to develop research laboratories with demonstrable progress towards it.**
	• Presently the institute has 04 recognized research centres offering 07 research programmes and willing to increase the intake. • Institute will upgrade the UG, PG laboratories for undertaking Ph.D. and M.Phil. work as per following plan:

Particular	Existing	Plan for upgradation
01) Department of Chemistry		
Post-graduate and Research Degree Programmes	• M.Sc. in Organic Chemistry by Papers • M.Sc. in Analytical Chemistry by Papers • M.Sc. in Organic Chemistry by Research • M.Sc. in Inorganic Chemistry by Research • M.Sc. in physical Chemistry by Research • M.Sc. in Analytical Chemistry by Research • Ph.D. in Organic Chemistry • Ph.D. in Physical Chemistry • Ph.D. in Inorganic Chemistry	Recognition for Ph.D. in Analytical Chemistry programme
Physical facilities for Research	• Research Laboratory - I • Research Laboratory – II • Science Resource Centre	Upgradation of research laboratory
Learning Resources	**Instruments:** • UV-Visible Spectrophotometer • FTIR • AAS • GC • Gouy's Apparatus • Flame Photometer • Rota evaporator **Software** • Chemsketch • Chem Draw **Library** • 580 Reference Books **Human Resources** • Teaching Staff – 18 • Non-Teaching -10	Upgradation of instrumentation facility
Intake Capacity	PG : 48 Ph.D. : 15	

02) Department of Biotechnology

Post-graduate and Research Degree Programmes	M.Sc. Biotechnology Ph.D. in science in Subject of Biotechnology	
Physical Facilities for Research	• Preparation room • Instrumentation room • Plant tissue culture laboratory • Animal tissue culture laboratory • UG laboratory • PG laboratory	**Research laboratory**
Learning Resources	**Instruments:** • All the basic instruments for UG and PG practicals • Advanced instruments like UV Visible spectrophotometer, PCR, CO_2 incubator, Incubator shaker etc. **Library** • Reference Books **Human Resources** • Teaching Staff =10 • Non-Teaching =04	Advanced instruments like Gel documentation system, FPLC, water purification system etc. Software for biostatistics Subscription to research journals Enrolment of faculty for PhD degree programme
Intake Capacity	PG : 20 Ph.D. : 05	PG : 25 Ph.D. : 08

03) Department of Microbiology

Post-graduate and Research degree Programmes	M.Sc. Microbiology	Recognition for Ph.D. in Microbiology programme
Physical Facilities for Research	• Preparation room • UG laboratory • PG laboratory	Research laboratory
Learning Resources	**Instruments:** • All the basic instruments for UG and PG practicals • Advanced instruments like, PCR, Rotavapor, Incubator shaker etc. **Library** • Central and Departmental Library with reference books	Advanced instruments like Gel documentation system, FPLC, water purification system etc. Software for

	Human Resources • Teaching Staff =08 • Non-Teaching =04		biostatistics and bioinformatics Subscription to research journals • Faculty promotion to secure Ph.D. degree • Appointment of Ph.D. guide
	Intake Capacity	PG : 12 Ph.D. : 00	PG : 20 Ph.D. : 05
04) Department of Geography			
	Post-graduate and Research degree Programmes	B.A. Geography	Recognition for M.A. Geography/Certificate course in GIS
	Physical Facilities for Research	UG Lab	PG Lab
	Learning Resources	**Instruments: Basic Software** • Geo Mapper **Library** • Central and Departmental Library with reference books **Human Resources** • Teaching Staff =02	**Survey Instruments** • Arc GIS • SPSS software • Subscription to research journals • Appointment of P.G. teacher • Telescope
	Intake Capacity	PG : Nil	PG : 20
05) Department of Hindi			
	Post-graduate and Research degree Programmes	PG and Ph.D. in Hindi	---
	Physical Facilities for Research	---	---
	Learning Resources	**Library** • Central and Departmental Library with reference books **Human Resources** • Teaching Staff =02	• Subscription to research journals • Visiting faculty appointment =02
	Intake Capacity	PG = 12 Ph.D. = 05	PG= 20 Ph.D. =08
06) Department of English			
	Post-graduate and Research degree	M.A. In English Literature	Ph.D. in English

Programmes		
Physical Facilities for Research	Interactive Language Laboratory with 20 station	Upgradation
Learning Resources	**Interactive Language Laboratory** **Instruments:** • Teachers Station -01 • Students booth-30 • Headset with microphones-30 • LCD Projector-01 **Software** • Acenet 5.1 SE • Clarity Spoken English Soft ware's(Tense Buster, Clear Pronunciation, Active reading and Business writing **Library:** Departmental Library with 600 books **Human Resources** **Full time : 03** **Visiting : 08**	Digital language Laboratory and sophisticated instruments Addition of Skill based software as per the needs Subscription of reputed national and international journals and purchase of reference books and CDs • Full time : 05 • Visiting : 05
Intake Capacity	PG : 52 Ph.D.: Nil	PG: 60 Ph.D. : 05
07) Department of Commerce		
Post-graduate and Research degree Programmes	PG and Ph.D. Programmes in commerce in the subject business policy and administration	---
Physical Facilities for Research	Commerce and Management resource centre	Conversion of the resource centre into incubation centre and entrepreneurship cell for commerce and management
Learning Resources	**Software** • SPSS Statistics 20, • Tally ERP 9	More Advanced Software
Intake Capacity	UG: 276 PG : 92 Ph.D.: 08	UG: --- PG : --- Ph.D.: 08
08) Department of Accountancy		
Post-graduate and Research degree Programmes	PG and Ph.D. Programmes in Commerce in the subject of Accountancy	---

Physical Facilities for Research	Commerce and Management resource centre	Conversion of the resource centre into incubation centre and entrepreneurship cell for commerce and management
Learning Resources	**Software** • SPSS Statistics 20, • Tally ERP 9	More Advanced Software
Intake Capacity	UG: 276 PG : 92 Ph.D.: 46	UG: --- PG : --- Ph.D.: 08

- Institute has a plan to upgrade the Science Resource Centre to Incubation centre with the upgradation and addition of instruments.

- Upgradation of Commerce and Management resource centre

- Library facility by subscription to reputed e-journal resources.

- The institute has a plan to promote research culture amongst the teachers and students by

  o Increasing the budgetary provision for research work,

  o Providing increased space and facility for the research,

  o Facilitation to publish and present research work, and to secure its copy rights.

  o Organization of seminars and workshops related to research.

Purchase of professional software to support research work statistical software, bioinformatics software.

g.	**Plan for Teaching and Research Collaborations with Global Universities figuring in the most reputed global rankings.**
	• Institute has a plan to collaborate with following universities/ institutions for starting and strengthening research based programmes: o Bhaba Atomic Research Centre, Mumbai o Indian Institute of Technology, Mumbai o Institute of Chemical Technology, Mumbai o Savitribai Phule Pune University, Pune o Indian Institute of Science Education and Research (IISER) , Pune o Bharathi Vidyapeeth (Deemed to be University) o D.Y. Patil University, Mumbai

	o Amity University, Mumbai	
	o Hindustan Aviation Academy, Bangalore	
	o Birla Institute of Technology and Science (BITS), Pilani	
	o Indian Institute of Science, Bengaluru	
h.	**Networking plan outlining the teaching and research collaborations and partnerships**	

Presently the institute has academic linkages with industries and institutes of national reputes for academic visits as well as for deliberations of lectures/seminars and workshops.

The institute is willing to enhance the collaborations for

- Syllabus designing,

- outsourcing of research work,

- Collaborative research,

- Faculty/ student exchange.

i. Infrastructure development plan. (Existing and Proposed infrastructure with financial repercussion and timeline for development)

Existing Infrastructure

Sr. No.	Particular	Area (In Sq. Mt.)	Amount (Spent) In lakh
1	Classrooms	2811.60	400.00
2	Toilets	504.37	80.00
3	Administrative Buildings	130.93	25.00
4	Laboratory	1603.71	30.00
5	Computer Centre	496.29	10.00
6	Computers	450 No.	180.00
7	Library	557.50	60.00
8	Canteen / Cafeteria	211.55	25.00
9	Lab Equipment	-----	125.00
10	Books/Journals	83060 Books	166.00
11	Sports Facility	281.12	60.00
12	Pantry	10.20	2.00
13	Principal Office	33.0	5.00
14	Board Room	57.74	7.00
15	Waiting Room	24.07	3.00
16	Maintenance Room	15.80	2.00
17	Green House	138.75	15.00
18	NCC Office	100.13	11.00
19	Gymnasium	171.55	20.00
20	Gymkhana	171.55	20.00

21	NSS Office	100.13	10.00
22	Gymkhana	41.25	5.00
23	Play Ground	8791.19	100.00
24	Generator Room	61.62	7.00
25	High Tension Power Station	83.08	40.00
26	Open Court Theatre	803.63	90.00
27	ETP Plant	25.20	5.00
28	Biogas Plant	64.0	0.50
29	Gas Chamber	8.05	0.80
30	Parking	927.64	30.00
31	Fire Hydrant System	---	14.00
32	Lift (612 Kg/9 Person Capacity	---	15.00
33	Botanical Garden	4657.13	100.00
34	Vermicomposting	88.0	5.00
35	Commerce and Management Resource Centre	180.25	60.00
36	Science Resource Centre	128.19	60.00
37	Skill Development Resource Centre	37.24	10.00
38	Server Room	11.08	3.00
39	Interactive Language Laboratory	90.77	25.00
40	Guest Room	34.06	5.00
41	Classrooms	2811.60	400.00
42	Examination Office	133.5	20.00
43	Solar Control Room	8.19	1.00
44	Fire Extinguisher	---	5.00
45	Staircase	466.32	100.00
	Total	---	**1947.30**

Proposed Infrastructure

Sr. No.	Particular	Amount (to be spent) in lakhs	Time line
1	Computer Centre (Upgradation)	45	March-2020
2	Laboratory Equipment	90	March-2020
3	Seminars/ Workshops/ Conferences	50	March-2020
4	Training programmes for Students	20	March-2020
5	Training programmes for Teachers	18	March-2020
6	Training programmes for Non-Teaching staff & office staff	05	March-2020
7	Seed money for Research Students	25	March-2020
8	Seed money for Research Teachers	40	March-2020
9	Honorarium to researchers	25	March-2020

10	Academic software	30	March-2020
11	Exposure visits	20	March-2020
12	Scholarships/Fellowships	30	March-2020
13	Introduction of new skill development courses	20	March-2020
14	Mentoring other institutions for accreditations	02	March-2020
15	Development of E-content	08	March-2020
16	Environmental Consciousness	07	March-2020
17	Students' exchange programmes	05	March-2020
18	Health, sport and well being	10	March-2020
19	Entrepreneurship Cell & Career Hub	50	March-2020
	Total	**500**	---

j.	**Administrative plan for getting accreditation from National and International Agencies as well as marketing and promotion.**

1) The college is having framed comprehensive policies in the planning of national and international agencies for accreditation.

2) Currently, College has been accredited by National agencies like NAAC with A Grade in 2007, reaccredited (2nd Cycle) with A Grade (CGPA - 3.13) in 2012 and reaccredited (3rd Cycle) and awarded A+ Grade (CGPA - 3.61) in 2017.

3) In appreciation of the institution for its contribution towards the safe, healthy and green environment UAB group London awarded green certificate.

4) The Institute awarded by ISO 9001:2015 and ISO 14001:2015.

5) The institute has plan to accreditation by National Institute Ranking Framework (NIRF), National Accreditation Board for Testing and Calibration Laboratories (NABL) through MHRD and other international agencies.

6) We intend to apply for India Today, Times of India for Ranking system in Mumbai zone and all over in India.

7) Publicizing and promotion of college activities with the help of updated website prospectus, print media, and local news channel etc.

8) The College intends to develop software to collect the online feedback and to calculate the student satisfaction index based on the online data. A link on the college website is made available for students to express their feedback.

k.	**Governance plan elaborating the proposed Institutional structure and how it overlaps with ownership, decision-making process and social engagement.**
	Changu Kana Thakur Arts, Commerce and Science College, New Panvel, a multi-faculty premier institution of higher learning, with an enrolment of more than 4,000 students (for UG, PG and Research Programmes). The College is spread over an area of 06 acres of land in the prime location of Panvel and developed as an eco-friendly campus.

The college is established on September 26, 1997 by Janardan Bhagat Shikshan Prasarak Sanstha, Panvel under the visionary leadership of charismatic and benevolent mass leader Hon'ble Shri. Ramsheth Thakur (Former Member of Parliament and Chairman, J.B.S.P. Sanstha, Panvel).

The college has been permanently affiliated with the University of Mumbai. College is awarded with 'College with Potential of Excellence' status by UGC (2009-2013 & 2013-2019). The College has been re-accredited (3rd Cycle) by NAAC and awarded 'A+' Grade with CGPA 3.61 in October 2017.

The Governing Body will be the apex body with full powers of governing the autonomous institute. It will be ably supported by the various statutory bodies such as Academic Council, Board of Studies and Finance Committee. In addition, College Development Committee (CDC), Internal quality Assurance Cell (IQAC), Examination Cell, Committee of faculty in-charges, committee of Head of the Departments/In-charges, Committee of administrative staff and non-teaching staff will contribute to the decision making process of the institute. For the smooth functioning of day-to-day activities, college will have various committees such as

Examination Committee, Admission Committee, Library Committee, Student Council and Student Welfare Committee, Grievance Redressal Committee, cultural committee, Sports committee, various associations etc.

Thus, institute will have democratic and committee based decision making process which facilitates improved alignment, participation in activities, integration ultimately results in success.

Institution has concrete strategic framework for fair and transparent governance and accountability. It is based upon the SWOC analysis of state of affair, critical success factors, desired goals to achieve, strategic gaps, strategies to fill the gaps, learner's need and resources necessary to implement and sustain the growth and development in institution.

- Strategic planning includes

  1) Choice Based Credit System

  2) Exercising Autonomy for flexible and interdisciplinary approach

3) Transparent and participative administration

4) Signing MoU with the reputed institutes

5) Strengthening existing programmes

6) To nurture undergraduate and postgraduate educational experience

7) Faculty development initiatives

8) Research and Development

9) Campus-Community linkages

I. Campus plan

The Core Campus Policy include

1) Enhance the capacity and undertake a comprehensive review to ensure that infrastructure, space, information systems, and staff resources are in place to support, manage and accommodate increased numbers of students, intensification of research activities and outreach to our communities in this domain.

2) Strengthening of library and laboratories

3) Initiatives towards green campus

4) Extensive use of ICT

5) Installation of various software for academic/office/library/research use

   • Increased number of smart classrooms

   • Intend to increase carpet area of various departments

II. Academic Plan

As an academic institute, emphasize to develop relevant curriculum in fast changing world is the main objective of the institute. Interdisciplinary approach, context oriented applied research and restructuring the curriculum at the cutting edge of technology, program evaluation, assessment of student learning outcomes are main attributes of the academic plan. Given below the salient features of academic plan

1) Designing and updating of curriculum

2) Promote program quality and innovation

3) Allocate new resources to support innovative program development, evaluation and growth.

4) Plan and prepare certificate, diploma, short term, vocational and online courses and

programmes for each department which could be self-financed

5) Enhancement of interdisciplinary teaching programme by institutionalizing the credit and semester system. Switch over to relative grading system and make it compatible across sciences and humanities

6) Equitable workload policies

7) Build support for student to master the academic skills essential for success

8) Expansion of research strength by undertaking projects, publishing research papers in journals of National and International repute.

9) Increase experiential learning opportunities through internships and community based projects

10) To encourage faculty for ICT based learning.

III. Infrastructure plan

The infrastructure plan envisions the development of infrastructure commensurate with the anticipated increase in research needs and increase in student strength and supporting resources. The infrastructure plan, therefore recommends augmentation and upgradation of

1) Instructional technology services

2) Laboratories

3) Computer facilities

4) Central library/digital library

5) Interactive Language Laboratory,

6) Gymkhana,

7) Gymnasium

8) Incubation centre

9) Commerce and Science resource centres

IV. Administrative plan

1) Automation of office and other institutional processes

2) Student friendly systems for administrative procedures such as admission, results, scholarships etc.

3) Web based management of Library, Laboratories, Support Services

4) Participative and transparent mechanism

l.	**Clarify as to how Governance plan will be committed to the highest global standards of transparency, accountability, and efficiency.**
	1) Online admission process, precise admission timetable displayed in college website
	2) Biometric attendance system for Teaching & non-teaching staff
	3) Online attendance for learners.
	4) Provision of smart board, Projector to enhance the teaching learning process.
	5) Provision of free Wi-fi in campus
	6) Online feedback from stakeholders
	7) Regular alumni meeting, involvement of Alumni in some college cell
	8) Get- together Reminiscence every year for alumni
	9) Academic calendar is prepared and executed by each Department, Association
	10) Departmental budget is prepared and implemented.
	11) Academic diary is maintained by staff
	12) Result, Examination time table, notices to students is displayed on website regularly.
	13) Use of social sites for announcements and notices
	14) Awards to meritorious students
	15) Publish of Research magazine Anugoonj annually
	16) Conduct of Parent teacher meeting (Student mentoring)
	17) At entrance of campus, display of certification, list of various courses.
	18) Conduction of certificate courses, bridge courses to enrich learners.
	19) Establishment of Solar unit
	20) Proactive IQAC
m.	**Plan for involving the alumni in the management of the Institution and leveraging alumni financial resources**
	We have an active Alumni Association established in the year 2001 and duly registered under the 'Maharashtra Public Trusts Act' with the registration no. F- 4816. It relentlessly strives to provide a platform to interact and to maintain consistent rapport with alumnae who always work for recognition of the College and appreciate laurels achieved by our institution. It also fosters a mutually beneficial relationship between the College and Alumnae.
	Alumni interact regularly with college and help in organization of curricular, co-curricular, extra-curricular and extension activities of the college. The constructive suggestions given by alumni are

accepted and implemented accordingly.

The institution always actively encourages the Alumni to contribute towards the management of the institution in the following manner:

- As a member of IQAC
- As a member of Board of Studies
- As a Faculty Members
- As a Resource person for workshops and guest lectures
- As an initiator to organize placement drives
- As a member of Library Committee
- As a counselor to the students
- Organization of Ex-students get together "Reminiscence" every year
- The institution leverages the financial resources of the Alumni in the following manner:
- Financial assistance to the needy students
- Voluntary donations by Alumni
- Financial assistance of Alumni to social cause.

n.	**Intended target on possible world ranking after five, eight, ten, thirteen and fifteen years.**

Till date the College has to its credit the following academic achievements awarded by various agencies.

- NAAC accreditation:
  - ➢ A' Grade in the academic year 2005-06
  - ➢ A' Grade (CGPA - 3.13) in the academic year 2012-13
  - ➢ A^{+}' Grade (CGPA - 3.61) in the academic year 2017-18
- College with Potential for Excellence (CPE) status by UGC in 2009 to 2013 & 2013 to 2019.
- Best College Award'(in the Rural category) by the University of Mumbai in 2005.
- ISO 9001: 2015 Since 2016
- ISO 14001: 2015 Since 2016
- UAB group London awarded Green Certificate Level II
- FIST Programme of DST (2013 and 2016)

Keeping this trend, the college intends to upgrade its ranking at national and International levels.

The intended targets include

- Academic audit of the college and all the departments in next 2 Years.

	• 4th Cycle of Re-accreditation by NAAC in 2025 with improved CGPA. • To be amongst the top 100 colleges in India within the next 5 years. • To rank amongst the best institutions in National Surveys. • To figure in NIRF ranking. • To go for International Accreditation. • To go for 'College of Excellence' in 2019.

o.	**A research plan indicating the research laboratories and other facilities proposed to be established. In case of humanities, social sciences, and other interdisciplinary faculties, the research plan should indicate the broad areas and nature of fieldwork and research sought to be done**
	
	• **Proposed research facilities to be established For Science departments**
	
	  1. Upgradation of Science Resource Centre with sophisticated analytical instruments
	
	     o HPLC
	     o MS
	     o HPTLC

	2. Establishment to Molecular biology laboratory with
	
	     o Gel documentation system
	     o Electrophoretic separator equipment
	     o DNA sequencer
	     o Bioinformatics tools.
	
	3. Establishment of Mathematics laboratory with
	
	     o Computers and accessories
	     o Statistical software
	     o Mathematical Software
	
	4. Establishment of Environmental Science laboratory with
	
	     o Cooling Centrifuge -Model R-24C
	     o Distillation unit- Double glass distillation
	     o Gas chromatography
	     o Horizontal gel electrophoresis Model Gel mariner –R
	     o Electronic orbital shaker
	     o UV Trans Illuminator
	     o Inverted microscope
	     o Digital camera 12MP
	     o Shaker incubator
	     o Microwave
	     o CO_2 incubator

- o Deep fridge (-20^{0}C) 350 lit cap
- o PCR and Minisprine with accessories
- o UV visible Spectrophotometer
- o Autoclave
- o Hot Air Oven
- o Incubator
- o BOD Incubator
- o Laminar airflow
- o Flame photometer
- o HPLC
- o Spirometer
- o Particle size analyser

5. Upgradation of botanical garden with floral diversity.

6. Establishment of biodiversity research cell

7. Establishment of sericulture unit.

- **Proposed research facilities planned for humanities**

S.N.	Broad areas	Nature of field Work	Research Sought to be done	Proposed research facility
01	Economics	Comparative socio-economic survey based projects	Socio-economic study of private and government employee	Laptop, LCD projector, survey software, financial assistance
02	English	1. Language and Employability skills 2. Identification of research aptitude amongst the Post Graduate students	1. Problems in communication skills 2. Contemporary challenges and issues in Literature and language	1. Digital Language Laboratory 2. Commencement of Ph.D. centre in English
03	Geography	Survey Projects	Socio-economic and Environmental Studies of local area	GIS software GPS, other instruments and 02 Laptops, 01 with higher configuration
04	Hindi	1. Coordination with social NGO's for betterment of enrolled stakeholders 2. To establish Hindi Language Laboratory and translator centre at	1. To identify existing opportunities for upliftment of socio-economically backward learners 2. To strengthen existing infrastructure facilities 3. To inculcate	1. To undertake research tour within the vicinity of Raigad District 2. To purchase translation software for Hindi language 3. To establish Hindi Research activity cell

		our college 3. To sensitize learners towards social activities	research habit amongst stakeholders	
05	History	Physical visit to sites of Local history of historical monuments	Local history if historical monuments	Laptop, projector, camera and other tools and facilities
06	Marathi	1. स्थानिक बोलीभाषेच्या (आगरी कोळी) प्रचार आणि प्रसार करणे 2. बोलीभाषेचा शैक्षणिक अभ्यासक्रमात समावेश करणे	1. स्थानिक बोलीभाषेचा दैनंदिन व्यवहारात वापर 2. उपलब्ध शैक्षणिक साहित्यातील समावेश बोलीभाषेचा अभ्यास	1. दृक श्राव्य माध्यमांसाठी लागणारे साहित्य व्हिडीओ शूटिंग, कॅमेरा, लॅपटॉप इ. 2. रेकॉर्डिंग सेंटर - संवादकौशल्य आत्मसात करण्यासाठी, मुलाखती, लोकगीते, लोककथा, लोकसाहित्य
07	Political Science	Comparative socio-economic survey based projects	Socio-economic study	Laptop, LCD projector, survey software
08	Rural Development	Survey of Rural Communication NGO's & Rural Administration	Social, Political and economical conditions of villages	Financial help Printer, Net Connections
09	Commerce	Marketing Research Consumer Perception etc.	Avishkar Research Convention, Major and minor research projects, Ph.D. programme	Upgrade research centre
10	Accountancy	Accounting field, costing, taxation etc.	Avishkar Research Convention, Major and minor research projects, Ph.D. programme	Upgrade research centre

❖ **Proposed Research Projects:**

A. Contextual research project solving local problem

The institute is willing to undertake research projects solving local problems in a systematic way as a part of its CSR. The major focus of this research will be on ensuring social justice and empowering under- privileged and vulnerable sections of society. These projects will be completed by faculty of institute with students enrolled for NSS, NCC, DLLE and other students with a research aptitude.

Projects to ensure social justice:

Year 1. Study of economic and social status of slum habitants of Panvel Region

Expected outcome:

- The study will reveal the state of basic facilities, literacy rate and domestic violence.

- The study will suggest measures to improve financial, health and educational conditions of slum habitants.

Year 2. Student suicide: A Social and Emotional Study

Expected outcome:

- The study will help to find out reasons for student`s suicide.

- The study will help to suggest measures to overcome the problem.

Year 3. Domestic violence against women

Expected outcome:

- The study will help to the know the extent of domestic violence against women.

- It will also help to suggest measures to overcome domestic violence against women.

Year 4. National Rural Health Programme

Expected outcome:

- This project will help to know the obstacles in the implementation of this programme.

- It will help to suggest measures for successful implementation of this programme.

Year 5. Status of educated women in Raigad District

Expected outcome:

- This project will help to estimate the use of education by women in Raigad district

- It will underline the importance of education for women in a fast developing economy.

Year 6. The problem between Navi Mumbai International Airport and Project

Affected People

Expected outcome

- This project will help to find the ground reality of development.

- It will also help to know the problems of Project Affected People.

- It will also help to find the possible solution.

Year 7. A Study on Child Labour in Panvel

Expected outcome

- This project will help to find the status of child labour in Panvel.

- It will help to understand the reasons of child labour.

- It will also help to communicate to the authorities about the offenders.

Year 8. Study of educational development of tribal community

Expected outcome

- This project will help to find the status of tribal education in Panvel.

- It will help to find the problems in education of tribal.

Year 9. Drought and water management

Expected outcome

- This project will help to evaluate the reasons of drought.

- It will also help to analyse the best possible water management solution.

Year 10. Government policies and its impact on development of tribal block of Panvel

Expected outcome

- This project will help to evaluate the implementation of Government policies.

- It will also help to identify the hurdles in implementation of policies.

B. Other Research Projects

Year 1- 10:
1. The institute is willing to undertake continuous projects related to water quality analysis in the Panvel City and nearby region. The areas of these research projects are:
    i. Microbial analysis of potable water.

   ii. Chemical analysis of water quality.

iii. Effect of industrial effluent on water quality.

iv. Water quality analysis of organically polluted lakes.

v. Study of seasonal variations in physico-chemical parameters of rivers.

vi. Physico-chemical analysis of groundwater.

2. **The institute has also planned to undertake research-based awareness campaign to spread information about**

vii. Hazardous chemicals in common household products

viii. Food adulteration

ix. Rubella vaccination among girls

x. Adverse effect of junk food habits on health and growth of children

xi. Oral cancer and its risk factors

xii. Hazardous elements of electronic waste and their effect on human health

xiii. Adverse effects of use of plastics among the residents

xiv. Mosquito borne diseases among the villagers

xv. Adverse effects of screen addiction among children

xvi. Adverse effects of deforestation in Raigad District

xvii. Prevention of spread of Dengue and other similar diseases

p.	**Sustainability plan for the period when the additional public funding ceases.**
	• Industry – academia projects to be undertaken for additional fund raising • Consultancy services for fund raising • Corporate sponsorship or partnership with corporate and business sponsors for organisation of different events • Apply for research funding from local, state, national and international agencies

E) Proposed one year implementation plan

a.	Mention the detailed and tangible action plan, milestones, and timelines by which it seeks to achieve high performing status, mentioning milestones to be achieved in two years.

- **First Year**
  - To Strengthening and sustain existing curricular, co-curricular, extracurricular and extension activities
  - To maintain continuity and consistency in all academic and administrative activities in the curriculum implementation of all programmes and courses
  - To commence new Programmes/Courses
  - To strengthen the academic flexibility
  - To augment the Infrastructure and learning sources.
  - To strengthen the research culture
  - To collaborate and consultancy
  - To strengthen the placement activity
  - To obtain the NIRF Ranking
  - To get the college with Excellence (CE)
  - To get the Star College
  - To continue an ISO Certification
  - To Upgrade of level of Green Certification

Particular	Amount (to be spent) in lakhs	Time line (In Yrs.)
Laboratory Equipment	90	Sept-2019 : Asking for quotations Oct-2019 : Tender finalization Novt-2019: Procurement of equipment Dec-2019: Installation March-2020: Completion of work
Computers	45	Sept-2019 : Asking for quotations Oct-2019 : Tender finalization Novt-2019: Procurement of equipment Dec-2019: Installation March-2020: Completion of work
Seminars/ Workshops/ Conferences	50	Sept-2019: Initiation of process March-2020: Completion of work

Training programmes for Students	20	Sept-2019: Initiation of process March-2020: Completion of work
Training programmes for Teachers	18	Sept-2019: Initiation of process March-2020: Completion of work
Training programmes for Non-Teaching staff & office staff	05	Sept-2019: Initiation of process March-2020: Completion of work
Seed money for Research Students	25	Sept-2019: Initiation of process March-2020: Completion of work
Seed money for Research Teachers	40	Sept-2019: Initiation of process March-2020: Completion of work
Honorarium to researchers	25	Sept-2019: Initiation of process March-2020: Completion of work
Academic software	30	Sept-2019: Initiation of process March-2020: Completion of work
Exposure visits	20	Sept-2019: Initiation of process March-2020: Completion of work
Scholarships/Fellowships	30	Sept-2019: Initiation of process March-2020: Completion of work
Introduction of new skill development courses	20	Sept-2019: Initiation of process March-2020: Completion of work
Mentoring other institutions for accreditations	02	Sept-2019: Initiation of process March-2020: Completion of work
Development of E-content	08	Sept-2019: Initiation of process March-2020: Completion of work
Environmental Consciousness	07	Sept-2019: Initiation of process March-2020: Completion of work
Students' exchange programmes	05	Sept-2019: Initiation of process March-2020: Completion of work
Health, sports and well being	10	Sept-2019: Initiation of process March-2020: Completion of work
Entrepreneurship Cell & Career Hub	50	Sept-2019: Initiation of process Dec-2019: Completion of work
Total	**500**	---

b.	Timeline to achieve the expectations for each of the parameters as proposed in the two-year strategic plan.

Sr. No.	Parameters	Timeline (in years)
a.	An academic plan showing the courses proposed and a research plan focusing on current thrust/niche area(s) of expertise and proposed plan in pursuit of excellence in those areas.	March-2020
b.	A faculty recruitment policy and plan to meet the academic plan requirements and to achieve 1:10 faculty-students ratio.	March-2020

	c.	The proposal, if any, to recruit faculty from industry, Government, Non-profit Organizations, etc. including foreign faculty.	March-2020
	d.	Student admission policy mentioning the plan to select Indian and foreign students.	March-2020
	e.	Does the college have a plan to provide scholarship to meritorious Indian and foreign students?	March-2020
	f.	A comprehensive plan to develop research laboratories with demonstrable progress towards it.	March-2020
	g.	Plan for Teaching and Research Collaborations with Global Universities figuring in the most reputed global rankings.	March-2020
	h.	Networking plan outlining the teaching and research collaborations and partnerships	March-2020
	i.	Infrastructure development plan. (Existing and Proposed infrastructure with financial repercussion and timeline for development)	March-2020
	j.	Administrative plan for getting accreditation from National and International Agencies as well as marketing and promotion.	March-2020
	k.	Governance plan elaborating the proposed Institutional structure and how it overlaps with ownership, decision-making process and social engagement.	March-2020
	l.	Clarify as to how Governance plan will be committed to the highest global standards of transparency, accountability, and efficiency.	March-2020
	m.	Plan for involving the alumni in the management of the Institution and leveraging alumni financial resources	March-2020
	n.	Intended target on possible world ranking after five, eight, ten, thirteen and fifteen years.	March-2020
	o	A research plan indicating the research laboratories and other facilities proposed to be established. In case of humanities, social sciences, and other interdisciplinary faculties, the research plan should indicate the broad areas and nature of fieldwork and research sought to be done	March-2020
	p.	Sustainability plan for the period when the additional public funding ceases.	March-2020

**Future plans for enhancing employability/placement
by organisation of lectures/seminars/workshops
for strengthening placement**

- Seminar on education fair about various opportunities to study in USA, Canada and UK in collaboration with GEEBEE Education, Vile-Parle Mumbai.
- Seminar on employability skills related to resuming writing and interview in collaboration with Growth Centre Pvt Ltd. Chembur Mumbai.
- Seminar on career opportunities in the field of corporate sector in collaboration with Fazlani Altius Business School Andheri Mumbai.
- Seminar on opportunities for IT professionals in collaboration with Jetking Infotrain Ltd. Mumbai.
- Seminar on group discussion in order to develop argumentative skill among the students in collaboration with Pollux Life Science Solution Ltd.
- Seminar on professional skills development and image enhancement programmes in collaboration with TMC Academy Kandivali Mumbai.
- Seminar on HR Interviews for students in collaboration with SQUAD Infotech Pvt Ltd. Mumbai.
- Seminar on robotic process automation and its importance's in technology in collaboration with Automation anywhere Mumbai.
- Workshop on career counselling in collaboration with Edupristine Andheri Mumbai.
- Workshop on career development to UG and PG students in collaboration with Endeavour Mumbai Mumbai.
- Workshop on financial literacy and its importance's in life in association with JBIBS, Mumbai
- Workshop on women empowerment in association with Campus Credentials Thane.
- Workshop on personality Development in association with BVIMSR Mumbai.
- Workshop on entrepreneurship in association with Vconsult Thane
- Workshop on voice modulation and presentation skills in association with C-CAPS Nerul.
- Workshop on Communication skill and in association with Endeavour Mumbai Mumbai Ace Mentors Pvt Ltd. Thane.