

FOR 4th CYCLE OF ACCREDITATION

KARNATAK SCIENCE COLLEGE

COLLEGE ROAD, NEAR ALL INDIA RADIO, DHARWAD 580001 kscd.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Karnatak University, Dharwad being second oldest University in Karnataka state, is one of the reputed institutions of higher education in the country. It started functioning from April 1949 with Mr. R.A.Jahagirdar as first Vice-Chancellor. Late Dr. D.C.Pavate who was third Vice Chancellor from 1954 to 1967 visualized the role of this University and transformed this into the best by bringing it national and international recognition. The Karnatak University is re-accredited with 'A' Grade by NAAC, in the year 2022. The Karnatak State University Act – 2001 governs Karnatak University. The Jurisdiction of the University extends over Dharwad, Gadag, Haveri and Uttar Kannada districts.

Students of North Karnataka Region region had to reach Mumbai or Pune to persue college education. Due to efforts of Late Shri.Diwan Bahadur Srinivas Rao Rodda, Late Shri.Rao Bahadur Rudragouda Artal and Late Shri.M.B.Choubal, the foundation stone of Karnatak College was laid on 20th June 1917 by then Governor of Bombay Province. Karnatak College was established with an intention of provide opportunities to our graduates to become athletes, self-reliant and loyal citizens of country. Late Sir. Siddappa Kambli played a vital role in establishing science wing in Karnatak College in 1924. Karnatak University, Dharwad, in 1958, took over Karnatak College from government to run it as a Model College. Later, the Karnatak College was bifurcated into two, named "Karnatak Science College" and "Karnatak Arts College" sharing common campus and amenities for administrative purposes. Late Dr.G.S.Paramasivaiah, student of Nobel-laureate Sir.C.V.Raman, was the first Principal of the Karnatak Science College, Dharwad.

The funding status of the college is Grant-in-aid. This college is constituent college of Karnatak University, Dharwad and recognized by UGC under 2(f) and 12B. The college spearheads transformation in education with 03 UG, 04 PG and 09 Ph.D programs.

During last five years, students of this college have performed remarkably well in the University examinations.

Vision

Creating and sustaining a "Just, equitable, tranquil, harmonious social order with scientific temperament"

Mission

- To enhance student ability, to make them special and valued, thereby, creating experiences surprisingly positive and memorable.
- Providing a variety of options for delivering dazzling science education to our students.
- To offer invigorating experiences in a way that builds rapport, and create sustainable, positive, defining moments.
- To inspire student to do what they say, they will.
- To help students network with people who have common needs and interests to do something extra.
- To provide necessary infrastructure to generate a talented human resource pool, this will be useful to our society at large.

- To transform students into sharp thinkers, writers and leaders, in the profession of their choice.
- To install scientific temperament in the younger generation.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

The main Strength of the college are:

- **Eco-friendly Campus:**The College campus sprawls over 55 acres of land, with pollution free and eco-friendly atmosphere. It iscentrally located with well-connectivity by roads to many parts of Dharwad City.
- Active Participative Management: Governing Council of college is headed by Vice-Chancellor, KUD with one Syndicate member and three faculty members as members, along with Principal as Secretary, guides and regulates activities of college.
- Fully fledged Departments: There are tendepartments, namely Botany, Chemistry, Criminology & Forensic Science, Geology, Geography, Mathematics, Physics, Statistics, Zoology, andComputer Science. Each department is housed in a separate building with its own library and excellent museum, well-equipped laboratories, and well-furnished classrooms.
- Qualified and experienced faculty: The College has 102 well qualified, experienced and dedicated full time teachers, out of which 67 are Ph.D holders.
- Admission Mechanism: Applications are invited from across the state and country. Students are admitted based on merit cum roster.
- ICT Facility: State-of-the-art infrastructure with ICT-enabled classrooms and seminar hall.
- **Hub of Knowledge:**The College has central library which is stocked with over 1.82 lakh books, in two categories: UGC-aided textbooks and home-issue books with seating capacity for 200 students. 200 titles are added annually, with subscriptions to 28 periodicals.
- The college boasts well-equipped sports infrastructure for both indoor and outdoor games. **Residential facilities for students**: The College has well-furnished two boys hostels, named "Krishna" and "Godavari," each accommodating 100 boys, one ladies hostel called "Kaveri," accommodating 200 girls in old & new wings.
- Top of Form
- NCC and NSS wings: The College provides opportunities for students to participate in NCC and NSS activities
- Science Association: The Science Association including Study Circles of each department, provides platform for students to gain knowledge about upthrust areas.
- **Student welfare:** The College has a Student Welfare Officer overseeing the general welfare of students and addresses student grievances in coordination with Principal.
- **Research Guides**: Teachers recognized as research guides in various departments are mentoring students pursuing Ph.D. To date, the college has produced over 42 Ph.D. holders. Several teachers have completed major research projects funded by National Agencies.
- Various Scholarships, Awards, and Prizes: The college offers many Govt scholarships and merit scholarships.
- **E-Governance:** E -governance has been initiated in academic and administrative processes.
- WI-Fi Connectivity: Wi-Fi facility of speed upto 300Mbps is available.

Institutional Weakness

The main weaknesses of the college are:

- Manpower crunch: The number of permanent staff has gradually decreased year after year due to retirements and deaths, and vacant positions remain unfilled. As a result, there has been an increase in the number of teaching assistants and guest faculty. This situation can occasionally impede the college's ability to engage in long-term planning activities.
- **Research funding**: There has been a significant reduction in funding from government, non-governmental, and private agencies for research. Therefore, the institution requires financial assistance to encourage and promote research among both staff and students.
- Lack of interaction with industry: There is minimal interaction between the institution and industry, which needs to be improved.
- Alumni involvement: Efforts should be made to enhance alumni involvement in college-level activities.
- **Parent's involvement**: Despite widely circulated notices, there is a low turnout of parents at parent meetings (teacher parent interactions).
- Collaboration with corporates: Strengthening collaborations and exchange programs in research consultancy and teaching-learning processes with national and international institutions is essential.
- Untrained technical staff in laboratories: The College's laboratories are spacious and can accommodate over 100 students, but the laboratory staff lack adequate training. Steps to train the laboratory staff, utilizing the expertise of teachers (Professors in-charge of each laboratory) has been taken up.
- **Inadequate budget allocation for various departments**: With ten major departments housed in separate buildings, the institution faces challenges in maintaining infrastructure and academic requirements, due to insufficient budgetary allocation.

Institutional Opportunity

The institution has an ample of opportunity to efficiently exploit its strengths, and effectively enhance the quality of education provided to the students.

- New Programs and Courses: With administrative support, the College can advance its progress by introducing postgraduate, diploma and job-oriented certificate programs, as well as introduce applied courses to meet the needs of society.
- **ICT Upgradation**: While 25 out of the 35 classrooms are fully furnished with ICT facilities, there is an opportunity to provide ICT provisions for the remaining 10 classrooms.
- **Internet Browsing Center**: The college can establish a browsing center for students to access course-related data and learning resources, as an alternative to scarce and outdated books.
- Role of Alumni: Mobilizing resources from alumni can enhance infrastructure facilities and support the organization to conduct various curricular and extracurricular events.
- **Mobilizing Research Funds**: As the institution is recognized as a research center, there is an opportunity to generate funds from funding agencies for research projects through MOUs and collaborations. Eligible teachers can be motivated to write research proposals to the funding agencies, and implement the sanctioned projects as Principal Investigators.
- Community Service: Volunteers from NCC, NSS, departmental study circles and associations extend their services to the countryside, allowing young minds in the community to avail their expertise and

- understand the importance of involving in social service.
- Establishing Training Centers: Applied courses such as Fisheries, Microbiology, and Biotechnology provide an opportunity to establish training centers to meet the needs of society and industry.
- **Placement Opportunities**: There should be more campus recruitment opportunities for postgraduate, BCA, and B.Sc. students.
- Establishment of Coaching Centers: Many UPSC/KAS/other competitive exam aspirants from our college attend coaching classes conducted by private agencies, after college hours. To accommodate such students, the college can itself start coaching centers by charging a nominal fee, which will help the poor students, especially from rural areas.

Institutional Challenge

The main challenges of the college are:

- Maintaining the Pace of Campus Development: As a constituent college of Karnataka University, the institution admits students from all categories with minimal fees, which poses a monetary constraint on infrastructure development and maintenance of the large college campus.
- Coaching and Skill Training Cell: Most students admitted to this college come from rural backgrounds and aspire to appear for competitive exams to enhance their employability. There is a need to establish a coaching and skill-oriented cell within the college.
- Strengthening Relationships with Stakeholders: Strengthening relationships with stakeholders is essential for the college's growth and development.
- Language Teachers: A significant challenge faced by the college is the absence of language teachers. Language teachers from the sister college teach all courses in the curriculum.
- **Placement Drive:** It is crucial to motivate industries and employers to conduct campus recruitment drives for both undergraduate and postgraduate students.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Curricular Planning and Implementation

- The College abides by the curricula and syllabi prescribed by the University for all 16 programs.
- Semester-wise teaching plans, academic diary and syllabus completion reports are made, for proper implementation of the curriculum.
- In every academic session, the IQAC and College Development Committee plans the college academic calendar with Continuous Internal Evaluation (CIE) of curricular, co-curricular and extracurricular activities.
- College makes arrangement for display of common time table for formative assessment (FA1 & FA2) in the beginning of the semester courses. Each department will prepare calendar as per the common time table, mentioning the sectional and internal examination schedules, and circulate the same among

- faculty members and students.
- The evaluation report (FA1 & FA2) is made available to the respective students by displaying it on the departmental notice boards.
- Grievances of the students if any are invited and are addressed within stipulated time, without hampering the academic calendar of events.

ACADEMIC FLEXIBILITY

- Over the last five years, the college has offered 24 Certificate/Value-added courses.
- 852 students benefited from these courses, which accounts for 9.38% per cent of the enrolled students.
- Top of Form

CURRICULUM ENRICHMENT

- Professional Ethics is included in all programs such as B.Sc, B.Sc (CS), BCA, M.Sc in Botany, Chemistry, Mathematics, and Physics, as well as Ph.D.
- Skill development courses are offered in BCA, B.Sc (CS), and UG Courses
- Several programs are conducted for women and girl students, like organizing folk dance competitions and haemoglobin check-up camps.
- The committee for women's anti-harassment and the internal complaints committee organize programs on women's empowerment, laws for women, and women's day
- The process of managing liquid, solid, and e-waste is practiced on campus. Separate areas with dustbins are designated for disposing of solid waste materials. Dustbins filled with waste materials are collected by the city corporation.
- 618 students have enrolled for the academic year 2022-23, which amounts to 31.61% of the total enrollment

FEEDBACK SYSTEM

- The college obtained feedback from various stakeholders like Students, Teachers, Employers, Alumni parents
- The collected feedback has been analyzed, and an action taken report has been prepared and submitted to the appropriate bodies

Teaching-learning and Evaluation

STUDENT ENROLMENT

- The enrollment of the college during the academic year was 98 percent, and seats filled against reserved categories were 96 percent
- The student full time teacher ratio was 1:19

The college has adopted student-centric methods to enhance learning experiences, and teachers use ICT-enabled tools

Experiential Learning Methods:

- Students designed and installed a biogas plant, enriching their understanding of biogas production.
- Students developed Vermi culture and Vermi composting techniques.
- Students explored mushroom cultivation honing various techniques and packaging skills.

Participatory Learning Methods

- During the assessment years (from 2018-19 up to 2022-23), the college has adopted **43** experiential learning methods
- Participatory learning among students is facilitated through innovative components such as group discussions, quizzes, poster presentations, games, simulation exercises, Debates, and demonstrations.
- Students are participated in role play activities, like group discussion, wall papers, projects, quiz, poster presentation, one act play, mime, drama, mimicry, dance, singing, *Rangoli* and *mehandi*, where they can use their specialized technical.

Problem Solving Methods

• Collaborate in Technical Forums such as Evogen.11.0, Tantrastra, Takshak-2K2 2020.Method involves coding, networking, gaming, designing, debating, and content creation, allowing students to share and discuss their technical skills.

ICT Enabled Teaching

- Institution provides enough ICT-enabled Seminar Rooms, Computer Labs with Internet access to equipped laboratories and Wi-Fi enabled Smart Class rooms.
- 80 percent of the teachers working in the college are well qualified
- An Internal Examination Committee is formed at the institute level to address matters pertaining to the assessment process.
- Every department conducts tests on time. Marks are awarded for their Assignments, seminars are presented. The test marks are displayed on the notice boards.
- If students have any grievances, teacher provides them evaluated answer scripts. Teacher addresses the grievances.

STUDENT PERFORMANCE AND LEARNING OUTCOME

- The institution communicates the POs and COs by displaying them on the institution's website, accessible to students, parents, and prospective students.
- About 20% of students were randomly selected from each combination to calculate the programme outcome
- The Overall Attainment for a course is sum of 20% of Internal Assessment Test Attainment Level and 80% of University Attainment Level.
- The pass percentage of the collage was 86.

Research, Innovations and Extension

Resource Mobilization for Research

- The college is recognized as a research center by Karnatak University, Dharwad, and 23 teaching staff members are recognized as research guides.
- Under these guides, 30 students have been awarded Ph.D, and 60 students are pursuing their Ph.D. degrees.
- The college has a Research Developmental Cell.
- Rs. 115.77 lakh has been received from external funding agency for Minor and Major Research Projects.

Innovation Ecosystem

- The college has created an innovative ecosystem by establishing an IPR cell, organizing lectures and seminars on entrepreneurship development, and Intellectual Property Rights .
- 43 workshops/seminars/conferences on Research Methodology, Entrepreneurship, and Intellectual Property Rights have been organized, along with 29 seminars/training programs.
- The institute has its own mechanism for encouraging academic and extra-curricular activities among students, through programs like Science Association, Gymkhana, and Akka Association.
- The institute provides on-field experience to students not only in waste management but also utilize organic waste to produce manure, Vermicompost, mushroom cultivation, and the establishment of a biogas plant.

Research Publication and Awards

- Over the past five years, 314 research papers and 12 books have been published in UGC CARE listed journals. 06 Research papers by our faculty have been recognized a best research paper awards.
- The College NSS Programme officer has been awarded the Best NSS Programme Officer Award and the NSS unit of the college awarded the "Best NSS Unit".
- One staff member has been awarded the Best Teacher award "Rasayana Shikshaka Ratna".
- 86 faculty members have participated in conferences and symposiums over the past four years.
- The college has 19 research collaborations with national institutions, and 05 MoUs with other academic institutions.

Extension and Outreach activities

- The College promotes various extension activities through NSS, NCC, AKKA Ladies Association, Science Association and Study Circles, student welfare, IQAC, and IQAC Cell and a number of programs have been conducted, including 64 extension and outreach activities during the last five years.
- Staff members of the Department of Geology provide services to farmers and the public by identifying bore well locations.

Collaboration

• The college has 19 research collaborations with national institutions, and 05 MoUs with other academic institutions.

Infrastructure and Learning Resources

Physical infrastructure

- The college was established in 1958 located on calm and beautiful landscape and campus area 55 acres with built-up area of 33,047.74 Sq. Meters with 44 buildings
- The college spent 565.73 lakh on development and augmentation of physical infrastructure. Similarly, an expenditure of 361.61 lakh was incurred for the maintenance of physical facilities and academic support facilities.
- The college has 10 departments of which 6 departments are housed in independent building.
- The college has 35 class rooms, 08 seminar halls 30 laboratories, 04 computer laboratory, 05 museums and 5 hostels.
- Standard Athletic track 16,896 meters and two large playgrounds with 14,557 sq.meters.
- One Shuttle badminton court and one Gymnastic hall with **80 sq.** meter and **30 sq.** Meters respectively.
- The college has sufficient computers for staff and teachers and student-computer ratio is **10:1**
- The campus also includes a health center, bank, adequate parking facilities, library, canteen, gymnasium hall, two auditoriums, and common rooms for girls.

Library as a Learning Resource

- The library has two storied building spanning over an area of **3,440.52 square** metres having spacious two reading halls. 24 X 7 Library is also available for the students.
- Library consists of **1,82,534** text books, **31,35,000** e-books,(Through N-List) **28** journals and **6000** e-journals, with free access for students and teachers Library is fully automated with all its subsystems like **LAN connectivity and Wi-Fi.**
- Library Management Software system (e-Lib) is incorporated with latest technologies that enables Library to serve its users more efficiently.

IT Infrastructure:

- The institution has **252** computers, **26** LCD projector,**07** scanners, **24** printers, 08 Smart boards, **4** Digital Video Recorder with 16 **channels** (55 CCTV)
- Digital library has been established for users through the On-line Digital Library and is equipped with **17** Desktops with Wi-Fi/LAN.
- The internet connectivity of Bandwidth 300 Mbps.
- A separate digital library provision has been made with 04 computers for the students of visual disability.
- The library is equipped with software like UGC **N-LIST, OPAC,E-LIB** provides access to several ebooks and e-journals and other e- materials for faculties and students.
- N-LIST provides access to **31,35,000** e-books, **28** journals and **6000** e-journals through national Digital Library of India .

Student Support and Progression

Student support:

• The college supports holistic student development with mentorship, grievance redressal, career

- guidance, anti-ragging, welfare, and placement, gymkhana, and science association.
- Financially challenged students receive scholarships, including government and college-established ones,
- Over the past five years 6,831 students are benefited by government scholarships worth of 5,57,04,887
- 29 capacity-building and skill-enhancement activities, including soft skills, communication skills, computing skills, were organized.
- 1002 students benefitted from career counselling and competitive examinations Guidance Centre
- The college adheres to guidelines of statutory bodies like Internal Complaints, Anti-Ragging, Anti-Sexual Harassment, and SC/ST Committees for grievance redressal

Student Progression:

- 188 students are placed and 1017 (five year) students' progression have progressed their higher education during the last five years.
- 45 students have qualified the competitive exams such as GATE, UGC-NET, SET, IIT-JAM, etc. in the last five. 65 and 92 NCC cadets qualified B and C certificate.
- 16 students become university blue in different sport and 22 students won national level medals
- **07** students secured University Ranks and 07 Gold medals in different subjects during the last five years.

Student Participation and Activities:

- Two students serve as IQAC members, twelve as gymkhana secretaries, two as Science Association secretaries, two as Varnasaptaka auditors, and two as cultural and committee secretaries
- NSS volunteers participated in National Integration Camp held at Shimogs, KUD coimattur
- Sport and cultural committee organized Karnatak University Inter collegiate Ist Zone Cricket tournaments for men and Karnatak University Inter zone Cricket tournaments, Dharwad district League Football tournament
- 164 and 116 Students participated and won prizes in cultural and sports activities respectively.

Alumni Engagement:

- The college has a registered alumni association, named as 'Karnatak Science College Alumni Association, Dharwad' (KSCAAD) which has significant contribution for the overall development of the institution.
- It was established on 13th February, 2009 with Registration No. DRZ/SY/313/2008-09.
- Alumni members have contributed Rs.5, 61,772 towards the development of the college over the last five year.
- Alumni associations conduct periodic meetings and are engaged in various academic and administrative activities
- Alumni Association members have donated **16** rock benches worth of Rs 2,42,500 to establish green library .

Governance, Leadership and Management

Institutional Vision and Leadership

- Administrators, Management, Governing Council, Principal, IQAC, Committees, administrative staff, NCC & NSS Coordinators, and office support staff align with the institution's vision, mission, and values.
- Administrators, Management, Governing Council, Principal, IQAC, and stakeholders enhance institutional quality through decentralization in academia and administration.

Strategy Development and Deployment

- The college, a constituent of Karnatak University, comprises members including the Hon'ble Vice-Chancellor (Chairman), Registrar, Dean, Student Welfare Officer, one Syndicate member, two Senior Associate Professors, one Senior Assistant Professor, with the College Principal serving as Secretary.
- E-governance is practiced in admissions, Finance and Accounts, Student Admission and Support, Examination, library services, alumni registration/ feedback.
- The college has statutory and non-statutory committees like Grievance Redressal, Anti-Ragging, Internal Complaint, SC/ST,

Faculty Empowerment Strategies:

- Staff access to government financial schemes including gratuity, pension, commutation, EL encashment, maternity and paternity leave, medical facilities, and sabbatical leave.
- Faculty members are encouraged to participate in academic events with financial aid. 18 teachers benefited from KUD's support.
- Timely promotion of teaching and non-teaching faculty as per the guidelines of University and UGC. 17, 03 and 8 teachers are promoted as Professor, Associate Professor and selection grade respectively.

Financial Management and Resource Mobilization:

- The College implements two UGC-recommended appraisal schemes: Performance-Based Appraisal System (PBAS) and "Self-Appraisal Report," offering feedback to faculty members.
- The college mobilizes funds from student fees, government salary grants, and undergoes financial audits by Accountant General auditors, Government of Karnataka
- The institution has received grants of Rs.115.75 lakh from external funding agencies like SERB/DST/VGST/RQCOD/USRG for Minor and Major Research Projects.

Internal Quality Assurance System

- Preparation of Strategic and Perspective plan, Academic Calendar, Submission of AQAR, Feedback Analysis and participate in NIRF, AISHE are the unique quality initiatives carried by the IQAC
- IQAC meets twice in a year in order to plan, direct, implement and evaluate the teaching, research and publication. .

Quality measures initiated by IQAC

- Regular Academic and Administrative Audit, feedback on academic activities and supporting services, Green Audit, Energy and Environment Audit are done regularly.
- IQAC takes steps to collaborate with academic institutions to facilitate learning as well as research initiatives.

Institutional Values and Best Practices

GENDER EQUITY

- Our Institution motto is to provide equal opportunity, empowerment and rewards for both students and the teaching faculties
- Promotes gender equity, national integration through internal complaint committee, women empowerment, students' grievance and redressal cell, fostering gender sensitization and inclusivity.
- The Institute has 24x7 securities guard at least one lady security guard in the campus along with high tech CC cameras in the prime areas.
- The college provides equal opportunities to girl students in IQAC composition, Science Association, Gymkhana, Miscellany, and other committees as secretaries
- The separate girls' common room with sanitary napkin vending machine.

Environment and sustainability

- Gardens, pedestrian-friendly pathways are in the college campus.
- The institution manages solid, liquid, biomedical, and e-waste, fostering environmental consciousness among students through eco-friendly initiatives.
- Water conservation is done by rainwater harvesting, water-pits, refilling borewell.
- The process of carbon sequestration, environmental and energy audit has been undertaken regularly.
- Top minimize the electricity bill charge the Solar panel for electricity generation and use of LED Bulbs have been installed.
- Campus green activities namely plantation drive on the campus, regular cleaning, organization of environmental awareness programmes, biogas plant etc conducted.
- The campus is landscaped with a variety of trees and plants and pedestrian-friendly pathways.

Inclusive Environment

- NSS and NCC volunteers conduct activities promoting awareness on Covid-19, Constitution Day, Anti-Tobacco Day, Blood Donation, and Van-Mahotsav, instilling vital values
- The Institution celebrates national/international commemorative days like Independence and Republic Day, Martyr's Day, International Water Day etc.
- Solid waste management and eco-friendly campus practices include awareness programs, plantation drives, dustbin installation for waste segregation, and identifying waste generation spots.
- Most of the bio-degradable waste is recycled in 'Vermi-composting Unit.
- Mushroom cultivation, Biogas plant and AZORA cultivation and research platform are the other unique best practices in the institution.
- BEST PRACTICES:
- 1. Solid waste management and creating eco-friendly campus
- 2. Encouraging under graduate students in research and development
- 3. INSTITUTIONAL DISTINCTIVENESS
- The Institution has received 115.75 lakh from funding agency viz., DST-SERB. UGC, VGST and other

funding agency

- The staff members are having h -index ranges from 3 to 21 and the journal impact factor from 0.35 to 10.5
- During the last five year 314 research papers have been published.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	KARNATAK SCIENCE COLLEGE
Address	College Road, Near All India Radio, Dharwad
City	Dharwad
State	Karnataka
Pin	580001
Website	kscd.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	M.S.Salunke	0836-2215400	9845252705	0836-274433 4	kcdnaac@gmail.co m
IQAC / CIQA coordinator	L.T.Nayak	0836-3584788	9448746967	0836-274433 4	nayaklt68@gmail.c om

Status of the Institution		
Institution Status	Constituent	

Type of Institution		
By Gender	Co-education	
By Shift	Regular	

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details

State	University name	Document
Karnataka	Karnataka University	View Document

Details of UGC recognition				
Under Section Date View Document				
2f of UGC	16-09-1958	<u>View Document</u>		
12B of UGC	16-09-1958	View Document		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)					
Statutory Regulatory Authority Recognition/Appr oval details Instit ution/Department programme Recognition/Appr oval, Month and year(dd-mm-yyyy) Remarks Remarks					
No contents					

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus					
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	
Main campus area	College Road, Near All India Radio, Dharwad	Urban	55	33047.74	

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Pro gramme/Co urse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BSc,Anthrop ology,	36	Pre University	English	35	31
UG	BSc,Chemist ry,	36	Pre University	English	350	325
UG	BSc,Physics,	36	Pre University	English	120	120
UG	BSc,Zoology	36	Pre University	English	130	130
UG	BSc,Geology	36	Pre University	English	60	60
UG	BSc,Crimino logy And Forensic Science,	36	Pre University	English	75	75
UG	BSc,Geograp hy,	36	Pre University	English	40	40
UG	BCA,Compu ter Applications,	36	Pre University	English	180	180
UG	BSc,Comput er Science,	36	Pre University	English	70	70
UG	BSc,Mathem atics,	36	Pre University	English	190	190
UG	BSc,Microbi ology,	36	Pre University	English	40	33
UG	BSc,Genetics	36	Pre University	English	40	16
UG	BSc,Biotech nology,	36	Pre University	English	40	40
UG	BSc,Industria 1 Fishries,	36	Pre University	English	40	32
UG	BSc,Statistic s,	36	Pre University	English	60	46

UG	BSc,Electron ics,	36	Pre University	English	20	9
UG	BSc,Botany,	36	Pre University	English	130	130
PG	MSc,Chemist ry,	24	Graduation	English	46	46
PG	MSc,Physics,	24	Graduation	English	40	23
PG	MSc,Mathem atics,	24	Graduation	English	50	47
PG	MSc,Botany,	24	Graduation	English	30	29
Doctoral (Ph.D)	PhD or DPhil ,Chemistry,	36	Post Graduation	English	0	0
Doctoral (Ph.D)	PhD or DPhil,Physic s,	36	Post Graduation	English	0	0
Doctoral (Ph.D)	PhD or DPhil ,Zoology,	36	Post Graduation	English	3	2
Doctoral (Ph.D)	PhD or DPhil ,Geology,	36	Post Graduation	English	3	0
Doctoral (Ph.D)	PhD or DPhil ,Criminology And Forensic Science,	36	Post Graduation	English	4	0
Doctoral (Ph.D)	PhD or DPhil ,Geography,	36	Post Graduation	English	7	3
Doctoral (Ph.D)	PhD or DPhil ,Mathematics	36	Post Graduation	English	6	2
Doctoral (Ph.D)	PhD or DPhil ,Statistics,	36	Post Graduation	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Botany	36	Post Graduation	English	2	2

Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	Professor				Associate Professor			Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				104			
Recruited	0	0	0	0	0	0	0	0	45	0	0	45
Yet to Recruit	0				0			59	59			
Sanctioned by the Management/Soci ety or Other Authorized Bodies	0			0				0				
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0			0	0			0				

	Non-Teaching Staff							
	Male	Female	Others	Total				
Sanctioned by the UGC /University State Government				16				
Recruited	2	2	0	4				
Yet to Recruit				12				
Sanctioned by the Management/Society or Other Authorized Bodies				0				
Recruited	0	0	0	0				
Yet to Recruit				0				

	Technical Staff							
	Male	Female	Others	Total				
Sanctioned by the UGC /University State Government				38				
Recruited	2	3	0	5				
Yet to Recruit				33				
Sanctioned by the Management/Society or Other Authorized Bodies				0				
Recruited	0	0	0	0				
Yet to Recruit				0				

Qualification Details of the Teaching Staff

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	15	3	0	5	4	0	6	6	0	39
M.Phil.	0	0	0	1	0	0	1	3	0	5
PG	0	0	0	1	0	0	0	0	0	1
UG	0	0	0	0	0	0	0	0	0	0

	Temporary Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	21	10	0	31
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	11	15	0	26
UG	0	0	0	0	0	0	0	0	0	0

	Part Time Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty	Male	Female	Others	Total
engaged with the college?	0	0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	348	0	0	0	348
	Female	346	0	0	0	346
	Others	0	0	0	0	0
PG	Male	41	0	0	0	41
	Female	83	0	0	0	83
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	7	0	0	0	7
	Female	5	0	0	0	5
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	194	173	142	132
	Female	147	138	125	124
	Others	0	0	0	0
ST	Male	78	74	59	58
	Female	81	67	54	47
	Others	0	0	0	0
OBC	Male	629	578	461	413
	Female	699	673	654	677
	Others	0	0	0	0
General	Male	46	56	56	48
	Female	81	0	106	119
	Others	0	95	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total	,	1955	1854	1657	1618

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:

Karnataka is the first state in the country to implement National Education Policy-2020 (NEP) from 2021-22 for all the Under Graduate programmes. National Education Policy (NEP) provides an opportunity to the student to study diversified field and autonomy in the selection of the field of study in order to ensure knowledge, harmony and integrity. This institution is right now offering B. Sc., B. Sc. (CS), B.C.A., M.Sc. and Ph.D. Programmes as well as applied, life and earth Sciences, and Humanities. Hence, it is fully prepared and geared up for offering a complete multidisciplinary and Interdisciplinary experience to its learners. Under NEP programme, student can opt

for subject as diverse in any combinations such as Physics, Chemistry, Botany, Zoology, Mathematics, Statistics, Electronics, Computer Science, Genetics, Microbiology, Biotechnology, Geology, Ind. Fisheries, Geography, Criminology & Forensic Science and Anthropology. These courses are taught as Discipline Specific Core Course (DSCC) and Open Elective Course(OEC). Our Institution has offered 16 DSCC for B.ScProgramme. In our College through multi Disciplinary education system, students are given more opportunities to study by electing interested and employment oriented subjects. Mandatory courses like Environmental study, India & Indian Constitution, Artificial Inteligence and Financial Management and others are the part of the curriculum, and value based, skill based and knowledge based activities such as Digital fluency, Artificial intelligence, fundamentals of digital logics, open source tools, cyber crime, Yoga,/sports, cocurricular and extracurricular are also included in the curriculum in this institution. In the present curriculum structure, a provision is extended for all the students to opt for multiple entries and exit in 1st year with certificate, 2nd year with Diploma, 3rd year with general degree and after completion of 4th year with Honours(Research) degree, the students will be eligible to get admission for Ph.D. programme.

2. Academic bank of credits (ABC):

The student's data of the college are already available in the University Academic Bank of Credits can be accessed through their Digi-locker. Moreover, the State Government developed UUCMS is linked with ABC. Students are getting their marks card in digital form. In this connection, University has framed regulations and submitted to the Hon'ble Chancellor assent. The data are available in the credit as designed by the curricular frame work. Institution is encouraging both UG & PG Students to register for online credit earning courses from NPTEL, SWAYAM etc.

3. Skill development:

The designed curriculum has a provision to acquire soft skill by learning any two languages in the first four semesters of the programme and hands on training in the chosen courses for 10 credits. In Addition to the syllabi many skill based activities are organized by NSS and NCC volunteers' in and outside the campus. Different department of the college organize various skill based activities through

seminars, workshops, Creating Science models and exhibiting them. Karnatak Science College has signed Memorandum of Understanding (MOU) with Apponix Technologies Pvt. Ltd Hubballi, K.L.E's P C Jabin College, Hubballi and Education –Easy India Pvt. LtdBelagavi to train students on recent trends in corporate industry, preparing for interview, organising campus interview, MySmartShala to go digital, exchange information on recent advances in the field of Science. 4. Appropriate integration of Indian Knowledge The College has maximum umbers of Modern Indian Languages (MIL) to opt for the development of soft system (teaching in Indian Language, culture, using skills such as Kannada, Hindi, English, Urdu online course): &Persian, Sanskrit, Marathi etc and MEL like French. Through which, the students will understand the diversified culture of Indian Society. The medium of instruction to the students for all the Under Graduate Programmes is in either English or regional language (Kannada). Our Faculty are well versed in Bilingual teaching mode (Kannada/Hindi and English) for all the courses of B.Sc. B.Sc. (CS), B.C.A and PG since inception of the College and hence no issue of teaching in Bilingual mode. 5. Focus on Outcome based education (OBE): karnatak Science College offers B.Sc. B.Sc. (CS), B.C.A and PG Programmes, and our curriculum is totally outcome based education as decided by the Karnatak University. In this context, college has developed several new initiatives such as Creating a student centric environment, Mentoring and continuous assessment of learners and Encouraging application of knowledge for solutions have been taken by the college as per the objective of NEP 2020 for the student's employability. With the introduction of NEP, Karnatak University, Dharwad ha thoroughly revised curriculum in every subject with clear mention of Course Outcomes and Programme Outcomes. Students are made to understand the Pos and Cos so that they participate actively in all knowledge enriching programes conducted by every department. All faculty members encourage students to think out of the box and apply the knowledge in real-time situations. This meets main adpiration of NEP-2020. 6. Distance education/online education: As per the norms of Government of Karnataka, there is no provision for Distance education to manage the distance education by University/ College other than

Karnataka State Open University, Mysore, However, there is provision to learn 40% of content online. Now, the student admitted in the degree programmes as per NEP-2020, are allowed to learn online through, NASSCOM (futureskillsprime.in) and NSE Academy (https://www.nseindia.com) platforms to acquire knowledge in the courses like, Digital Fluency, Artificial Intelligence, Cyber security and Financial Education as mandatory courses of all UG programmes. The institute has a MOU with withApponix Technologies Pvt. Ltd Hubballi, and Education –Easy India Pvt. Belagavi which facilitates the students to do several online courses.

Extended Profile

1 Students

1.1

Number of students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1955	1854	1654	1618	1612

File Description	Document
Upload Supporting Document	<u>View Document</u>
Institutional data in prescribed format	View Document

2 Teachers

2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 138

8	File Description	Document
	Upload Supporting Document	View Document
	Institutional data in prescribed format	View Document

2.2

Number of teaching staff / full time teachers year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
101	108	101	92	96

3 Institution

3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
136.80	64.85	127.75	103.75	494.20

File Description	Document
Upload Supporting Document	<u>View Document</u>

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1

The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Response:

Response:

The college is a constituent college of Karnatak University, Dharwad, and the College abides by the curricula and syllabi prescribed by the University for all 16 programs (3 UG, 4 PG and 9 Ph.D. Programs).

- For the smooth conduct of the teaching-learning process, a uniform academic calendar is prepared, which is totally aligned with all departments.
- The time-table committee prepares a master timetable and then takes the approval from the IQAC and the Principal.
- Semester-wise teaching plans, academic diary and syllabus completion reports are made for proper implementation of the curriculum.
- Different pedagogies like participative and experiential learning along with problem-solving methods are adopted by using ICT tools for effective curriculum delivery.
- In every academic session, the IQAC and College Development Committee plans the college academic calendar with Continuous Internal Evaluation (CIE) of curricular, co-curricular and extra curricular activities.
- College makes arrangement for display of common time table for formative assessment (FA1 & FA2) in the beginning of the semester courses. Each department will prepare calendar as per the common time table mentioning the sectional and internal examination schedules and circulate the same among faculty members and students.
- The evaluation report (FA1 & FA2) is made available to the respective students by displaying it on the departmental notice boards.
- Grievances of the students if any are invited and are addressed within stipulated time without hampering the academic calendar of events.
- The details regarding submission dates of assignments are informed by the individual teachers as per their lesson plans. Faculty members participate in curriculum development and assessment at the University level in various capacities as members of their respective BOS.
- Induction program for freshers is conducted, during which the Principal addresses the students, informing them about the roadmap for various activities to be conducted in the college during the academic year.
- IQAC prepares the time schedule for the conduct of bridge courses for the beginners as well as seniors belonging to all the semesters. Based on the performance of the students in the first internals, a list of slow learners is prepared and the teachers are directed to conduct remedial classes for such students to strengthen the academic standards of the students and to improve their

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performance.

- Respective departments regularly organizes the study tours, industrial visits, seminars, debates, quiz competitions and workshops.
- The college has MoUs with other professional bodies, colleges and non- Government agencies and activities like field or industrial and laboratory visits, as well as special lectures are conducted.
- The college has extended facilities like Wi-Fi, E-learning and Library book borrower's card to teachers for effective delivery of curriculum.
- Students also engage in project work and field work for supplementing the teaching-learning process. The students are also accorded opportunities for experiential learning through practical sessions, projects, field-trips and internships.
- The college has offered **24** add-on or Certificate courses in the last five years focusing on the employability and skill development of the students. In fact **852** students have enrolled in such add-on courses during the assessment period.
- The present curriculum is totally outcome-based education. In this context, the college has developed several initiatives such as creating a student-centric environment, mentoring of students by teachers, the continuous assessment of learners and encouraging application of knowledge to find solution to various related problems or situations.

File Description	Document	
Upload Additional information	View Document	
Provide Link for Additional information	View Document	

1.2 Academic Flexibility

1.2.1

Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Response: 21

File Description	Document
List of students and the attendance sheet for the above mentioned programs	View Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document
Institutional data in the prescribed format	<u>View Document</u>
Evidence of course completion, like course completion certificate etc. Apart from the above:	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Response: 8.89

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
443	83	86	90	71

File Description	Document
Upload supporting document	<u>View Document</u>
Institutional data in the prescribed format	<u>View Document</u>

1.3 Curriculum Enrichment

1.3.1

Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum

Response:

Response:

The institution adheres to its vision and missions in the transaction of the curriculum, to build an enlightened and human society by educating the children from all classes of the society. We cater to the educational needs of rural masses, and efforts were made to integrate the various cross-cutting issues. Sensitizing faculty and students towards all the current issues like professional ethics, gender equality, human values and environment sustainability are well integrated through the curriculum.

- **1. Professional Ethics:** Professional Ethics are reflected through the curriculum of UG, PG and Ph.D programs and activities.
 - The curriculum of B.Sc, B.Sc (CS), BCA, M.Sc in Botany, Chemistry, Mathematics and Physics, as well as Ph.D. programs in Botany, Chemistry, Geography, Geology, Criminology and Forensic Science, Physics, Mathematics and Statistics, includes Professional Ethics.
 - Skill development courses are offered in BCA, B.Sc (CS) and UG Courses in Physics, Chemistry, Geology, Geography and Forensic Science among many others.
 - Professional ethics are also reflected in the curriculum of some add-on/certificate courses designed by the college in subjects such as Physics, Biotechnology, Industrial Fisheries, Microbiology, Geography, BCA and Forensic Science for the benefit of the student community.
 - Organization of entrepreneurship awareness programs has been done by the Placement Officer.
- **2. Gender:** Several programs are conducted for women and girl students, such as organizing folk dance competitions and hemoglobin check-up camps. The committee for Women's Anti-Harassment and the Internal Complaints Committee organize programs on Women's Empowerment, laws for Women and Women's day. The NSS unit of our college has been very pro -active in conducting various extension activities not only on the college premises but also in the neighborhood areas. Major gender issues are focused on and addressed through activities such as the "Save Girl Child" campaign, essay and poster exhibitions and wallpaper presentations.
- **3. Human Values and Professional Ethics:** The Indian constitution and human rights are mandatory subjects for BSc/BCA/BSc (CS) students, where human values and the principles of professional ethics are taught. In addition to this awareness campaigns, orientation programs and seminars are conducted to sensitize future leaders to inherit human values and cope with constitutional obligations.
- **4. Environment and Sustainability:** These issues are addressed in the UG programs, emphasizing their multidisciplinary significance the need for renewable resources and forth coming challenges regarding the environment and sustainability. The relevant courses and activities undertaken by the institution include the mandatory incorporation of environmental studies as a compulsory subject for students of all UG courses. The process of managing liquid, solid and e-waste is practiced on campus. Separate areas with dustbins are designated for disposing of solid waste materials. Dustbins filled with waste materials are collected by the city corporation. The college campus has an underground drainage system and liquid waste is safely discharged into it. Stored e-waste will be collected by the relevant university authorities. Additionally, certificate courses such as 'Biochemical Techniques' and lectures on Disaster Management are offered. The institution celebrates World Environment Day, World Earth Day, No Vehicle Day and World Ozone Day. Various activities such as online quiz and tree plantation drives are organized including national webinars.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

1.3.2

Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Response: 30.28

1.3.2.1 Number of students undertaking project work/field work / internships

Response: 592

File Description	Document
Upload supporting document	<u>View Document</u>
Institutional data in the prescribed format	View Document

1.4 Feedback System

1.4.1

Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website

Response: A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document	
Feedback analysis report submitted to appropriate bodies	View Document	
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document	
Action taken report on the feedback analysis	<u>View Document</u>	
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document	
Provide Links for any other relevant document to support the claim (if any)	View Document	

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 97.7

2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2022-23	2021-22	2020-21	2019-20	2018-19
861	813	556	546	583

2.1.1.2 Number of sanctioned seats year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
881	829	560	570	598

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 95.41

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2022-23	2021-22	2020-21	2019-20	2018-19
422	397	265	273	284

2.1.2.2 Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
441	415	280	285	299

File Description	Document
Institutional data in the prescribed format	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.2 Student Teacher Ratio

2.2.1

Student – Full time Teacher Ratio (Data for the latest completed academic year)

Response: 19.36

2.3 Teaching- Learning Process

2.3.1

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

Response

Experiential Learning Methods:

Outcome-based Education for the Courses and Programs of the Institution are structured for all the Courses

- Microbiology students at our college spearheaded the design and installed of a biogas plant, enriching their understanding of biogas production.
- Zoology students delved into Vermi Culture and Vermi Composting, grasping the methodologies and significance of these techniques.
- A cross-disciplinary collaboration ensued as Botany, Zoology, Microbiology, Geology and Chemistry students explored mushroom cultivation challenges honing various techniques and packaging skills.
- Microbiology students engaged in bioremediation experiments, extracting cadmium and chromium from industrial effluents.
- Department of Zoology meticulously crafted illustrative models of DNA helix and molecular structures.
- Project dissertations were meticulously prepared by students in Geography, Physics, BCA, Chemistry and Mathematics departments.
- Through demonstrations, practical experiments, industrial and field visits, students received hands-on training tailored to industrial demands, fostering holistic learning and preparing them for real-world challenges in their respective fields.

Participatory Learning Methods:

- The college provides quality education through invited lectures, seminars, training, workshops and orientation programs. These activities aid in achieving our set academic goals, program outcomes and course objectives.
- During the assessment years (from 2018-19 up to 2022-23), the college has adopted **43** experiential learning methods like invited lectures, seminars, training workshops and orientation programs.
- Participatory learning among students is facilitated through innovative components in our modular assessing panel, such as group discussions, quizzes, poster presentations, games, simulation exercises, debates and demonstrations.
- Students are encouraged to participate in role play activities, such as group discussion, wall papers, projects, quiz, poster presentation, one act play, mime, drama, mimicry, dance, singing, *Rangoli* and *mehndi*, where they can use their specialized technical or management skills.
- Through hands on training in laboratory experiments our students establish the subject's facts and laws and get acquainted with subjects.
- Our students are taken to Small Scale Agro-based Industry, Fields Visits/ Study Tours during the course.
- Our students take up mini research projects to apply theoretical knowledge and enhance technical skills and are guided by the concerned teaching staff.

Problem Solving Methods:

- Collaborate in Technical Forums such as Evogen.11.0, Tantrastra, Takshak-2K2 2020. Method involves coding, networking, gaming, designing, debating and content creation allowing students to share and discuss their technical skills.
- Case Studies are given for students to build solutions to problems. The performance of students in all events was excellent. Case studies are provided for students to develop solutions to real-world problems. Additionally, students are taught to build applications by developing various projects as part of the curriculum.

ICT Enabled Teaching in our Institute:

- Our teachers use a variety of teaching and learning methods, such as project-based, ICT enabled, Power Point Presentations, Computer-assisted, experiential, interactive teaching methods and class interaction and lectures.
- College provides enough ICT-enabled Seminar Rooms, Computer Labs with Internet access to equipped laboratories and Wi-Fi enabled Smart Class rooms with LCD facility.
- Teachers provide access to students the learning resources like Digital Library Resources like N-LIST, INFLIBNET /PUBMED etc.

Learning Using Social Media:

 Various Teaching / Study materials, Research Papers, Subject related Videos and Animations are shared with students. Through Social Media supported learning tools like Google Class Room, You Tube Channel, Whats App groups and Online Classes are conducted through platforms like Google Meet, and Google Classroom.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

2.4 Teacher Profile and Quality

2.4.1

Percentage of full-time teachers against sanctioned posts during the last five years

Response: 95.77

2.4.1.1 Number of sanctioned posts year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
104	104	104	104	104

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.2

Percentage of full time teachers with NET/SET/SLET/Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

Response: 70.88

2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
77	76	74	65	61

File Description	Document		
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	View Document		
Institution data in the prescribed format	View Document		
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	View Document		
Provide Links for any other relevant document to support the claim (if any)	View Document		

2.5 Evaluation Process and Reforms

2.5.1

Mechanism of internal/ external assessment is transparent and the grievance redressal system is time-bound and efficient

Response:

Response

Our college has an Internal Assessment procedure that ensures timely, transparent, efficient and effective conduct of Internal Exams. It has developed a meticulous process to handle complaints pertaining to Internal Examinations.

• Internal Assessment Components:

For Non CBCS/ CBCS Syllabus:

- 1. Two- 20 Marks Internal Theory Exams.
- 2. A single- 40-marks Practical Internal Exam cut down to 10 later.
- 3. 10-Marks Home Assignments.

For NEP Syllabus:

- 1. Two- 20 Marks Internal Theory Exams
- 2. A single- 25 Marks Practical Internal.
- 3. 10-Marks Home-Assignments.
- 4. 10-Marks Seminar

The Examination Committee creates the schedule for the Internal Exams.

- Students are informed and notified about the Internal Test Procedure and schedule in advance.
- The questions are set by concerned faculty to evaluate the perception and understanding of the subject by the students. Students are allotted Assignments and Seminars topics.
- Every department conducts tests on time. Marks are awarded for their Assignments, Seminars are presented, participation and interaction during the class and projects are concerned. The test marks are displayed on the notice boards.

Method of handling Complaints from Students:

- An Internal Examination Committee is formed at the institute level to address matters pertaining to the assessment process.
- If students have any grievances, teacher provides them evaluated answer scripts. Teacher addresses the grievances, errors in the question paper and mark distribution. If student is not satisfied, the student may consult the HOD. If required, a different teacher reevaluates the scripts.
- Students who remained absent in the Internal Tests for valid reasons are given a chance to retake the exam.

Student Mentoring is done in the departments to Monitor their Performance:

• The Faculty Mentor guides the under performed students and slow learners. Subsequently,

Remedial Classes are conducted for them.

External Examination:

- Exam guidelines from Karnatak University, Dharwad are followed.
- University notifies the Semester-End Examinations schedule for the Theory and Practical.
- A Chief Superintendent is appointed by the principal to ensure smooth conduct of Theory Exams.
- The university assigns a Sitting and a Flying Squad for Monitoring Examination process.
- The university and the principal designate an External and an Internal Examiner respectively for Semester-Ending Practical Exams.
- After the assessment, practical marks are uploaded in the university portal.

Process and Reforms:

- Before the assessment of the answer sheet they are barcoded to hide the student's registration number and later evaluated.
- The candidates results are declared by the University after the Sem end exams in its portal

Redressal of Grievances:

- For any discrepancies found by the students in questions, grades, mark sheet, or certificates; the matter is forwarded to University's Evaluation section by our college.
- Students can verify accuracy of the valuation by obtaining photocopy of their answer scripts.
- They may file for revaluation, recounting, and challenge valuation, if not satisfied with their results within the allotted timeframe after the results. If the mark difference of more than 21 between the first and re-evaluation scores on the same response sheet, then third valuation is done and they will be given justice.

Hence our Internal /External Examination System is Transparent, Time Bound and Efficient.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1

Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website

Response:

Response

The program and course outcomes for all programs offered by our institution are stated and displayed on our college website and communicated to teachers and students, which is a critical component of effective educational management and student engagement. This approach ensures that both faculty and students are aligned with the overarching goals of our institution and the specific objectives of each program.

Visibility and Accessibility of Program outcomes (COs) and Course Outcomes (POs):

- This is dedicated to prospective students, parents and faculty members. The outcomes are easily Visible and accessible to facilitate quick navigation.
- The institution communicates the POs and COs by displaying them on the institution's website, accessible to students, parents, and prospective students

The College is offering following Courses:

Under Graduate:

- B,Sc in 18 combination of subjects
- Bca and B.Sc (Computer Science)

Post Graduate:

• M.Sc in Physics, Chemistry ,Botany and Mathematics

Ph.D Programmes:

* Ph.D Programme in Botany, Chemistry, Forensic Science and Criminology, Geology, Geography, Mathematics, Physics, Statestics and Zoology.

Program Outcomes (POs):

- POs specific statements that describe the knowledge, skills and attitudes that students are expected to acquire upon completing an academic program.
- POs serve as a roadmap for students throughout the program. They align with the overall goals and objectives of the program and provide transparency to students, faculty and other stakeholders.
- While designing POs, the UGC's guidelines, along with the college's Vision and Mission are taken into consideration. Factors such as skill development, livelihood creation, human values, research, extension activities, personality development and employment opportunities are also considered. Suggestions from experts, stakeholders and alumni are taken into account.
- Many of our faculty members serve as chairpersons and members of the Board of Studies and paper-setting committees.

Programme Specific Outcomes (PSOs):

- **PSOs** describe what graduates of a specific subject or program are capable of acquiring, highlighting the unique skills and competencies specific to that program.
- The college ensures that POs and PSOs are aligned with the university-prescribed syllabus and

the core values of the institution. These outcomes are communicated to both faculty and students.

Course outcomes (COs) ::

- **COs** are specific learning objectives for individual courses within a program.
- COs define what students should achieve after completing a particular course.
- They ensure alignment between course content and program goals. COs guide instructors in designing effective teaching strategies.

Our each course syllabus includes specific COs:

- New students learn about program outcomes during Induction and Orientation programme.
- COs contribute to achieving the overall POs and PSOs. They are related to individual courses within a program and define what students should achieve after completing a specific course.

Upon completion of the course in various subjects, students are able to-

- understand the structure of biomolecules like proteins, lipids and Carbohydrates
- to write efficient algorithms, apply statistical methods to analyze data
- define the Physical Geography, the shape and size of the earth surface
- explain basics of laws of reflection and refraction in various subjects

In summary, POs and COs provide a targeted focus on the skills and abilities that graduates of a specific program should acquire. In our institute, clearly defined Programmes and Course outcomes have enhanced transparency, guided student learning and contributed to the overall effectiveness of our educational programs.

File Description	Document		
Upload Additional information	<u>View Document</u>		
Provide Link for Additional information	View Document		

2.6.2

Attainment of POs and COs are evaluated.

Explain with evidence in a maximum of 500 words

Response:

Response

Course Outcomes (CO) are assessed based on the students' performance, skill acquired, scores in Internal Assessments, Assignments, Projects, Presentations and University Exams

CO Attainment Process:

• Attainment Levels

The COs is formed and target level for attainment for each course is set by the co-ordinators/HODs. In our institute about 20% of students were randomly selected from each combination of programmes for the assessment.

Attainment of COs

Criterion for CO Levels and CO-attainment Target Levels:

CO Attainment Levels	Marks obtained in Interna	lMarks obtained in Sem End
	Theory and Practical Exam	Theory and Practical Exam
		(Conducted by University)
I	60% of students scored ?	50% of students scored ? 60%
	60%	
II	70% of students scored ?	60% of students scored ? 60%
	60%	
III	80% of students scored?	70% of students scored ? 60%
	60%	
IV	90% of students scored ?	80% of students scored ? 60%
	60%	

Programme Outcome(PO) are specific statements that describe the knowledge, skills and attitutes that students are expected to aquire upon completing an academic programme

Attainment of POs- These are broader and relate to the overall program which encompass the skills, knowledge and abilities that student acquire throughout their entire program.

Program Outo	comes	Courses considered	Assessment tools	Source of data
B.Sc	PO 1 -PO10		Direct Assessment	1.Internal Result
				Ledger
			1.Internal	
			evaluation	
		Respective Course is	S	
		considered for	 Average 	2.KUD result sheet
			marks of two	
		CO to PO mapping	Internal	
			Theory	
			Assessment	
			Tests.	
			 Assignments 	
			An Internal	
			Assessment	

B.Sc (CS)	PO1	of Lab
BCA	PO1	Practical
M.Sc	PO1-PO3	
		2. External
		Evaluation
		• A Sem-End
		Theory and
		Practical Exa
		minations
		conducted by
		the
		University

CO Attainment Calculation: Each course outcome is calculated for all the students based on marks obtained by the students.

No. of students secured equal or more than 60% of marks in COx

CO x Attainment in % = ------

No. of Students

Where, x = [1 to N], N = Number of Course Outcomes

Overall CO Attainment:

The Overall Attainment for a course is sum of 20% of Internal Assessment Test Attainment Level and 80% of University Attainment Level.

Calculation:

Where, x = [1 to N], N = Number of COs

Programmme Outcome Attainment Calculation

It is calculated by using the predefined CO/PO matrix and the value of Final CO attainment for each subject

Ex.

B.Sc. V SEM 2019-20 PO 1							
	CO1	CO2	CO3	CO4	CO5		COURSE A
							TTAINMEN
						AVERAGE	T
IA LEVEL	1	4	2	4	2	2.6	0.52
SE LEVEL	2	4	2	4	4	3.2	2.56
AVERAGE	1.5	4	2	4	3	2.9	
CO ATTAI	1.15	3.08	1.54	3.08	2.31	2.23	

NMENT						
	OVERALL	ATTAINM	ENT OF THE	E COURSE		3.08
	PO ATTAI	NMENT O	F THE B.SC.	COURSE		2.23

The PO attainment is calculated by using the formula:

PO attainment = Average of CO's of a PO1/4 X Final CO attainment for the subject.

To calculate the PO attainment value for PO1 in the above table,

PO attainment for PO1 = (Avg. of CO's for PO1 / 4) X 3.08

= (2.9/4) X 3.08

PO attainment for B.Sc. V Sem PO1 = 2.23

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

2.6.3

Pass percentage of Students during last five years (excluding backlog students)

Response: 85.77

2.6.3.1 Number of final year students who passed the university examination year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
410	501	450	475	496

2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
466	569	585	558	541

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	View Document
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.7 Student Satisfaction Survey

2	7	1
4	. /	1

Online student satisfaction survey regarding teaching learning process

Response: 3.59

File Description	Document
Upload database of all students on roll as per data template	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1

Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

Response: 115.75

3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
42.75	3.00	00	00	70

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

3.2 Innovation Ecosystem

3.2.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS),including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

Response:

The institute facilitates the creation and transfer of knowledge for students, teachers and research scholars by giving scope and a platform to develop their ideas and network with each other as well as experts in different fields.

- The institute has organized **lectures and seminars** on entrepreneurship development and the Intellectual Property Rights (IPR), to provide the staff members and students with the necessary knowledge and expertise to nurture creativity and innovate.
- To encourage young teachers to take up **research work** the institute has utilized a program by the University to provide seed money to researchers and this has helped them to develop research laboratories and involve students in innovative work, thus inculcating a research culture among

the students.

- The institute has its own mechanism for encouraging academic and extra-curricular activities among the students through the programs of the Science Association, different departmental study circles and the various departments of the Gymkhana. The Science Association conducts useful extra curricular activities for students, including celebration of National Science Day, the conduct of quiz, essay competitions and exhibitions, arranging special talks and scientific deliberations with scientists and involving students in various activities to improve their scientific temper and feed their enthusiasm to pursue science.
- The **Gymkhana** caters to extra-curricular needs of the students in areas like sports (including athletics, Football, Badminton, Indoor games and Cricket), wall paper and debate/ elocution, college magazine (article writing) and reading room among many others.
- The faculty members of the PG departments in the institute are actively involved in **supervising** the project activity of the M.Sc. students in their final semester leading to the submission of a dissertation. It is encouraging to note that some of this work has resulted in research papers in journals and conference proceedings. The students have obtained prizes for the presentation of their work in symposia and conferences.
- The institute has provided a suitable ecosystem to encourage the spirit of entrepreneurship among the students. A case in point is the training program on mushroom farming organized by the department of Botany. The participants learnt about the challenges faced during cultivation of mushroom on a large scale and got expert advice regarding the various techniques to overcome the problems in mushroom cultivation and need for packaging skills during the large-scale cultivation of mushrooms.
- A major issue of concern in civilized society is how it effectively manages the waste produced by it. The institute provides on-field experience to students not only in waste management, but also to separate the different types of waste (organic, bio-medical and e-waste) and effectively utilize the organic waste to produce manure and Vermi-Compost.
- Research Culture: A significant number of faculty members are recognized as research guides of Karnatak University, Dharwad and a several research students have been awarded the Ph.D Degree under their guidance. Some of the PG and UG students are also beneficiaries of this research culture, as their project work and dissertation are supervised by these recognized Ph.D Guides.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

3.2.2

Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years

Response: 8

3.2.2.1 Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during

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last five years

2022-23	2021-22	2020-21	2019-20	2018-19
03	02	02	01	00

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

3.3 Research Publications and Awards

3.3.1

Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

Response: 1.25

3.3.1.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
59	44	30	22	18

File Description	Document
Link to the uploaded papers, the first page/full paper(with author and affiliation details)on the institutional website	View Document
Link to re-directing to journal source-cite website in case of digital journals	View Document
Links to the papers published in journals listed in UGC CARE list or	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.3.2

Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during last five years

Response: 0.05

3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1	1	3	1	1

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format	View Document
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4 Extension Activities

3.4.1

Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.

Response:

Response

The college provides value-based education to the students, providing opportunities for them to participate in activities which inculcate a sense of social responsibility and empathy, which include their enrollment in men's andwomen's wings of the NSS and NCC, where they sincerely provide service with a sense of commitment.

• NSS activities: A significant number of awareness and blood donation camps have been organized with the involvement of students. The students have engaged themselves by taking part in extension programs which have been organized in neighboring villages through awareness

services, interaction programs which includes door-to-door visits in villages. They have educated the villagers on the importance of keeping their neighborhood clean and neat, and have organized programs to spread awareness about the proper disposal of waste, including plastic waste. The student volunteersof NSS developed a sense of social and civic responsibility, which is crucial for their role as responsible citizens.

- Events: The following events were conducted from 2018 up to 2023: anti-tobacco day, swachhabharatabhiyaan, voters day, world environmental day, yoga training camp, blood donation camp, awareness program on "plastic free campus", Cycle jatha and a state level seminar on occasion of "Azadi Ka Amrut Mahostava", National unity day (Ekata Divas), a program on importance of plantation, world diabetes day walkathon, world diabetes day awareness program, voters awareness jatha and Covid vaccination awareness campaign.
- Save Soil Campaign: A special program on "Save Soil" was organized on 23-06-2022. Prof. G. S. Dasog, Ex-Dean (Agri), Soil Scientist, University of Agricultural Science, Dharwad addressed the gathering and enlightened the faculty and students on the grooving topic of "Save Soil". He stressed on the need to create more awareness programs on the importance of the campaign 'Save Soil' and appealed to the students to discourage the use of plastics, which are posing a serious threat to the ecology.
- Extension program in a rural school: A "One day Extension and Skill Development leading to Self-Employment" program was organized by faculty members of Zoology department of the institute on 23- 06-2022. The resource persons were Dr. Sameer Chebbi, Dr. Harsha Neelgund, Dr. Manohar Pattar and Dr. Neeta Kari.
- Extension Program in a college: The Department of Physics of Dr. A. V. Baliga College, Kumta had organized a workshop on "Spin-Offs of Ionising Radiations for the Study of Materials" on 28th May 2022 in the audio-visual room, for B. Sc. VI Semester students. Dr. Blaise Lobo, Professor of Physics, Karnatak Science College, Dharwad was the resource person. Dr. Blaise Lobo started this workshop by explaining the part of basic physics concerned with the topic. Then he emphasized on different solid materials which undergo ionization by different kind of radiations, starting with x-rays. He gave a brief idea about the characterization of radioactive and ionizing materials. He has motivated the students towards higher education and research in physics.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

3.4.2 Awards and recognitions received for extension activities from government / government recognised bodies Response: Response:

The college NSS unit has obtained awards in recognition for the services provided by it, an award for the best NSS unit by Karnatak University, Dharwad.Some of the faculty members have extended their services as reviewers (referees) for reputed journals and their services have been appreciated.

- In addition to the "Best NSS Unit Award" obtained by the institute from Karnatak University, Dharwad during 2022-23 for its extension activities, the NSS coordinator of KSCD, Dr. S S Mangalawade has obtained the "Pawate Award" from the Karnatak University, Dharwad for the being the best NSS coordinator.
- Dr. Rajesh G. Kalkhambkar, Assistant Professor of Chemistry, Karnatak Science College, Dharwad has obtained grants (Principal Investigator) under Grants for Research Excellance, a total amount of Rupees Forty Lakhs (2022-23). He has also obtained the best research project award from VGST in 2018.
- Dr. Jayalshmi, Assistant Professor of Chemistry, KSCD has got the Homi Baba prize for oral paper presentation in two day national conference at S.N.Joshi College, Haddapsar, Pune. On 19/12/2018
- Dr. K. S. Katagi, Associate Professor in the Department of Chemistry, Karnatak Science College, Dharwad (KSCD) has been awarded the prestigious Kanaka Award in the field of Education (teaching) by the Shri Revanasiddaiah Mahamath, Mansur, Dharwad (2024).
- Dr. Jyothi S Doddamani, Assistant Professor of Physics, KSCD has got the "Best Research Paper Award," a recognition by the Karnatak University Dharwad for her research contribution in Physics during 2021.
- Dr. Saraswati Masti, Associate Professor of Chemistry, KSCD has got the "Best Research Paper Award" twice, a recognition by the Karnatak University, Dharwad for her research contributions in Chemistry during 2020 and 2022.
- Dr. G. H. Malimath, Professor of Physics, Karnatak Science College, Dharwad has obtained Asia's outstanding Research Award-2023 for research excellence for a paper published in "Materials Chemistry and Physics", an Elsevier journal. This is awarded by ISSN International Research Awards 2023 in affiliation with World Research Council and Times of Research. He also was selected for INTERNATIONAL RESEARCH AWARDS 2020 for the excellence in a research paper published in 'Chemical Data Collections', an Elsevier journal. This is awarded by RULA awards and IJRULA in affiliation with World Research Council and United Medical Council.
- Dr. K. Kotresha, Dr. K. S. Katagi, Dr. Saraswati Masti, Dr. Rajesh Kalkhamkar, Dr. Rajappa S,Dr. Reshma Nesargi, and Dr. Nirupama J M have been awarded with "Seed Money Research Grant" by the PMEB, Karnatak University, Dharwad during 2021-22.
- Dr. S. M. Tuwar, Professor of Chemistry, KSCD has obtained an award (as Best Teacher) by the Chem-Forum; he is the recipient of "Rashayan Shikhsak Ratna," a Best Teacher award in Chemistry in 2020.
- Dr. Blaise Lobo, Professor of Physics, KSCD and Dr. S.K. Rajappa, Assistant Professor of Chemistry, KSCD have secured "Best Paper Award" and "Best Oral Presentation Award" during international conferences held at Goa (2020-21) and Faridabad (2024), respectively. Dr. S. K Rajappa and his research student have also obtained "Best Oral Paper Award" during HIM Science Association Conference held at Himachal Pradesh in 2021-22. The research student of Professor K Kotresha has obtained a best paper presentation award at a National Conference (Botany/ Taxonomy) held in Maharashtra during 2023.
- Dr. Manohar Rathod Research student of Dr. S.K. Rajappa, Assistant Professor of Chemistry, KSCD has been awarded with a young scientist awards in international conference held at Shrinivash University during 2018-19.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

3.4.3

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.

Response: 21

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
05	07	04	02	03

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.5 Collaboration

3.5.1

Number of functional MoUs/linkages with institutions/industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Response: 18

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc.	View Document
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activitywise and year-wise	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for,

- teaching learning, viz., classrooms, laboratories, computing equipment etc
- ICT enabled facilities such as smart class, LMS etc.

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

Response:

Response:

The institution ensures that its physical infrastructure is not only abundantly available, but also efficiently utilized, acknowledging the pivotal link it shares with the institute's mission. Situated at the core of Dharwad city, the campus spans over 55 acres of land, graced by a captivating natural landscape. With a built-up area of 33,047.74 square meters distributed across 44 buildings, the college has strategically established independent facilities, equipped with ample physical and academic resources to cater the diverse needs for undergraduate (UG), Post Graduate (PG) and Ph.D programs.

Academic Infrastructure:

Technology-enabled classrooms (35), Seminar halls (08), 30 well-equipped laboratories 05 museums: Botany, Geology, Zoology, Geography, and Criminology/Forensic Science.

- **Electrical Supply:** 03 transformers of 20 kV are installed by HESCOM. Utilization of solar energy with poles having a capacity of 100 AH, along with LED advantages.
- Parking and Washrooms: Ample parking space with washrooms (09 for gents, 08 for ladies).
- Water Resources: Municipality water supply, 12 borewells, one open well, and a 50,000-litre overhead tank.
- **Hostel Facilities: Kaveri Ladies Hostel:** Accommodates 500 students, with a mess hall, reading room, TV room, solar water supply and 24/7 security vigilance. Two boy's hostels, named Godavari and Tungabhadra,both equipped with essential facilities.
- Campus Units: Student Welfare Units: NSS (2 units), NCC, grievance redress unit for conflict resolution, internal complaint committee/ anti sexual harassment committee, anti- ragging committee, counselling and career guidance cell, placement unit for career opportunities, health centre for medical assistance, canteen and recreational spaces for students and staff.
- Landscaping: Main garden on the campus, with individual departments gardens, contributing to a visually appealing and serene environment.
- Library Facilities: Central Library is housed in a two-storied building spanning 3440.52 square meters and
- **24/7 Library:** Spacious two reading halls covering an area of 992 square meters, ensuring continuous access to resources.

SPORTS:

The institution has advanced facilities and outstanding infrastructure, ensuring optimal support for sports training, and fostering a culture of physical fitness and athletic development. The institution has vast outdoor sports ground, offering a diverse range of facilities for cricket, football, basketball, volleyball, kabaddi, tennis, Kho-Kho, Tenikoit and more. Complementing this, there is an excellent indoor sports facility, featuring table tennis, carom board, chess, badminton, and a fully equipped gymnasium.

CULTURAL ACTIVITIES:

Institution has three auditoria to accommodate large gatherings, indicating a commitment to providing ample spaces for major programs and performances. Additionally, the incorporation of open-air stages and for cultural activities adds a dynamic and versatile dimension to the institution's event spaces.

Srijana Rangamandir(Audio- Visual Auditorium):

• Purpose: Srijana Rangamandir serves as a hub for audio-visual presentations, cultural performances and various events.

BCA Auditorium:

• With a seating capacity of 200 members the BCA Auditorium is likey an intimate space suitable for smaller gatherings, presentations and accademic events.

Amphi-Theatre(Open air auditorium adjucent to cricket ground infront of Karnatak Arts college) :

• Seating Capacity: Accommodates more than 500 people, suitable for outdoor events.

YOGA CENTRE:

• The amphi-theatre, with its seating capacity of more than 500 people serves as an ideal space for collective yoga sessions, fostering a sense of community and shared well-being.

GYM:

• The college's gym facility valued at over Rs. 5 lakh, exemplifies its holistic educational approach prioritizing both academic excellence and student's overall health. Equipped with diverse fitness tools, including cross-trainers, multi-gyms and treadmills, and separate timings for girls and boys, to ensure inclusivity and privacy and promoting equal access. It is monitored by the Physical Director

File Description	Document
Upload Additional information	<u>View Document</u>
Upload Additional information	View Document
Provide Link for Additional information	View Document

4.1.2

Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

Response: 58.29

4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
48.94	6.13	45.77	48.41	391.29

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.2 Library as a Learning Resource

4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Respo	onse:
-------	-------

Response:

Shri V. K. Gokak Central Library facility is a storehouse of knowledge for the students and public. The library is a two storied building spread over an area of 3440.52 square meters. The library is equipped with 1.82 lakh books, 24 Journals / Magazines, 93,809 *e*-books and 6,237 *e*- journals on various disciplines. The library is open for students and teachers to access its facilities from 8 am to 8 pm; however, the timings may vary on Sunday and Government holidays. Recently, a new building has been constructed which works 24×7 to support the students.

ILMS software: EASYLIB "ELIB" 16.2 version.

Digital databases and networks

Remote access facility for *e* –resources and webopse Archives for student's dissertations and faculty publications, N-LIST, Shodhaganga and Shodha-sindhu, ProQuest J Gate, IEEE, McGraw Hill books, Pearson E books. Disabled friendly, special, and reprographic facilities

The central library is inclusive for persons with disabilities with audio books and Braille materials for the visually impaired students. The library has reprographic facilities.

Accessibility, information dissemination training and exhibition

The open access facility facilitates readers to access library resources easily. The library constantly disseminates information regarding the facilities and programs on the institutional website, email, and social media. Training program on different databases has also been organized.

Individual Departments of various subjects are providing library facilities in their respective fields. These libraries have a huge collection of national and international edition books.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

4.3 IT Infrastructure

4.3.1

Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

Response:

Karnatak Science College has latest IT Infrastructure to support teaching-learning, research,

administration, and support processes. The proposed budget is prepared every year after collecting the requirements from the department and is submitted to the *finance committee* for approval. As per the approval the IT infrastructure is procured and updated.

Computers/Laptops: The College has several committees like information technology management committee, college website management committee and library management committee for updating the college website, and for the smooth functioning of the IT infrastructure. The IT policy/regulations in respect of usage of IT facilities such as Wi-Fi, cyber security and legal IT infrastructure, standards procedures for copyrights and its infringements are followed. The college augmented its basic information technology infrastructure periodically by introducing advanced technological support system, higher versions of software, and other multitasking and multiprogramming environments.

- **1.Computer Lab:** The College has three computer labs consisting of 252 computers with internet facility, with access to students and teachers. Software like Java, C, C++, SQL and Tally are installed in the computer labs as per the curriculum, and they are updated and maintained by the technicians as and when required.
- **2.Digital Library:** In the college, digital library has been established with 13 computers. Four computers are dedicated exclusively for the students with visual disability. Library has ELIB and OPAC software. Institute has upgraded Internet connectivity to 300 Mbps speed.
- **3.College Campus & Department IT facility:** All the departments in the college have smart classrooms, with fully furnished ICT facilities like LCD projector, Wi-Fi, personal computer connected with projector and smart boards. There are 28 CCTV cameras installed in the entire campus area of the college, including classrooms, to monitor the activities. The college has well-equipped seminar halls with ICT facilities including sound system (like mike, amplifier, and speakers) and internet connection. The whole campus of the college has Wi-Fi and LAN facility with a speed upto 300 Mbps. The college website is monitored and updated from time to time by the Web Coordinator in association with external agencies employed by the college. Most of the departments have computers with internet facility for the preparation of power point presentations as teaching-learning mode, and the same facility is extended to the research scholars of all the department.

File Description	Document	
Upload Additional information	<u>View Document</u>	
Provide Link for Additional information	View Document	

4.3.2

Student – Computer ratio (Data for the latest completed academic year)

Response: 10.18

4.3.2.1 Number of computers available for students usage during the latest completed academic

year:

Response: 192

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1

Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)

Response: 40.74

4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
87.11	57.38	79.68	53.93	99.67

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 68.54

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1953	1825	974	982	224

File Description	Document	
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	View Document	
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	View Document	
Upload policy document of the HEI for award of scholarship and freeships.	<u>View Document</u>	
Institutional data in the prescribed format	<u>View Document</u>	
Provide Links for any other relevant document to support the claim (if any)	View Document	

5.1.2

Following capacity development and skills enhancement activities are organised for improving students' capability

- 1. Soft skills
- 2. Language and communication skills
- 3. Life skills (Yoga, physical fitness, health and hygiene)
- 4.ICT/computing skills

Response: A. All of the above

File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Report with photographs on ICT/computing skills enhancement programs	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.1.3

Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Response: 8.17

5.1.3.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
193	97	85	256	79

File Description	Document
Upload supporting document	View Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

5.1.4

The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

- 1. Implementation of guidelines of statutory/regulatory bodies
- 2. Organisation wide awareness and undertakings on policies with zero tolerance
- 3. Mechanisms for submission of online/offline students' grievances
- 4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above			
File Description	Document		
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document		
Proof related to Mechanisms for submission of online/offline students' grievances	View Document		
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document		
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document		
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	View Document		
Provide Links for any other relevant document to support the claim (if any)	View Document		

5.2 Student Progression

5.2.1

Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 51.07

5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
198	353	247	194	199

5.2.1.2 Number of outgoing students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
410	501	450	475	496

File Description	Document
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	View Document
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	View Document
Institutional data in the prescribed format	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2.2

Percentage of students qualifying in state/national/international level examinations during the last five years

Response: 1.58

5.2.2.1 Number of students qualifying in state/ national/ international level examinations year wise during last five years (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/ GRE/TOEFL/ IELTS/Civil Services/State government examinations etc.)

2022-23	2021-22	2020-21	2019-20	2018-19
04	05	06	01	02

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

5.3 Student Participation and Activities

5.3.1

Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

Response: 10

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
03	00	00	02	05

File Description	Document
Upload supporting document	View Document
list and links to e-copies of award letters and certificates	View Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

5.3.2

Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

Response: 2.4

5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
03	06	00	01	02

File Description	Document
Upload supporting document	<u>View Document</u>
Institutional data in the prescribed format	View Document

5.4 Alumni Engagement

5.4.1

There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

Response:

5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

An Alumni Association is a development partner for the College, its students, and the community. Alumni relationships are lifelong relationships nurturing mutual support and growth. It provides a variety of benefits and services and maintains connections to their educational institution and fellow graduates. The Alumni Association aims to bring all the outstanding individuals together on a single platform. It provides a forum to form new friendships and business relationships with people of similar background. Alumni Meeting, a networking event conceived to exchange experiences and to share ideas with current students, faculties and staff. The alumni meet give an opportunity to renew bonds with past classmates and cherish their relationship with faculties and staff members.

Need of Alumni Association

The collegeformed the Alumni association with a vision to promote an inspiring relation with the former students of this college and to motivate current students to maintain a cordial relationship with the institution, thus enhancing the institution's brand. The need and importance of alumni organizations play a significant role in the growth of any educational institution. The Alumni association is a network of professional contacts which can bring many job opportunities for current students. It can thus help in boosting the employability and support their juniors effectively. The alumni association helps everyone stay connected and the members of alumni can provide a base of mentorship for their juniors. The professionals who belong to different sectors can be brought in one place and their experience would help building the career of their juniors. With that in mind our Alumni Association can collectively improve the stature of our institution.

Objectives of the Alumni

- Provide a forum and platform to create and encourage a sense of belonging among the alumni, the present students and the staff members.
- To develop a spirit of loyalty among the alumni which will prompt them to work for the all-round development of the college.

- To exchange ideas and knowledge for mutual development and create a healthy academic, social and cultural atmosphere.
- To bring together all the talents of the Alumni who will render voluntary services to the college, especially to the needy students of the college by sponsoring scholarships, prizes, and stipends.
- To provide information of employment opportunities in various fields to students- present and past and give proper direction to them.
- To bring about contact between the past and present students by holding periodical Alumni Day Celebrations as may be decided by the executive committee.

The college has a registered alumni association, namely, Karnatak Science College Alumni Association, Dharwad (KSCAAD), established on 13th February, 2009 (Registration No. DRZ/SY/313/2008-09).

The total number of Alumni members are in the College is 1747 (including students for 2023-24 academic year) for the Five Years (i.e. 2018-2023 and till date) and total amount of membership collected from the alumni is Rs 5,73,896=00 for Five years. Alumni of 1982 batch (Geology) gathered in the Karnatak Science College, Dharwad (KSCD) on 24/01/2023. Dr. S. C. Chougala, Principal of KSCD welcomed them. Dr.J.T. Gudagur, secretary of Alumni association organised the meeting. The Alumni provide ten stone benches to be put in the garden (Basaveshwara garden) of KSCD.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

Response:

Response

The Vision and Mission of the institute are in tune with the objectives of higher education.

VISION

Our college aspires to be a role model in both teaching and research in multidisciplinary areas of importance. The institution plays a vital role in the socio-economic progress of the country in a sustainable manner.

MISSION

Our mission is to provide, nurture and maintain a conducive environment for academic excellence, research and entrepreneurship, in order to prepare competent, ethical and socially responsible scientific professionals.

Reflection of Mission and Vision in the leadership of institute in ensuring

- 1. Designing of policy statements and implementation of action plans: University authorities, including the Principal, engage in general body meetings to align policy with the institute's vision. Stakeholders contribute to policy formulation. The Principal collaborates with department heads and senior faculty to develop action plans reviewed through functional committee meetings to assess outcomes.
- **2. Formulation of action plans:** Action plans led by the Principal and HODs align with quality policy and are integrated into strategic plans for implementation
- **3. Proper support for policy and planning:** The Principal with HODs gathers societal needs for policy planning through stakeholder interactions ensuring broad stakeholder involvement in diverse activities.

National Education Policy (NEP): The College implements the NEP, providing holistic education, flexible curriculum, skill emphasis, technology integration, research focus, multilingualism, teacher training, equitable education and vocational promotion. The NEP aims to transform the Indian education system to meet 21st-century demands, fostering student's holistic development

Perspective Plan: The perspective plan prepared for the next five years includes accreditation, innovative research, centre of excellence and collaborations for higher studies and student placement.

Decentralization participation:

The College promotes and practices decentralization both in administrative and academic activities establishing committees under the Principal's governance for effective institute functioning.

i. Administrative Decentralization:

Administrative decentralization comprises Governing council, Management and Administration.

- Governing Council: The governing council ensures proper functioning of the policies, rules and action plans of the college. The Principal of the institution is executing both the administration and academic processes.
- Management: The management endeavors to provide the best possible and substantial independence to the teaching, non-teaching (administrative) staff and the Chairpersons of various departments.
- Administration: College administration supports and monitors the development and implementation of policies, programs and initiatives that are associated with the vision and mission of the college.

ii. Academic Decentralization:

Department faculty oversees academic activities, requiring expertise in informational and knowledge aspects. Various committees, with defined roles, provide both academic and administrative leadership within the institution

• The Governing Council:

The institution's governing council, chaired by the Vice Chancellor of Karnatak University, oversees policies and action plans. The Principal managing both administrative and academic processes, leads faculty in planning, budgeting and policy development. Department heads, directed by the Principal prepare annual budgets based on syllabus and industry needs. Operational autonomy is granted to departments for procurement. The Principal consolidates departmental reports for University approval, managing sanctioned budgets.

For the smooth and effective functioning of college academic activities, the following committees have been formulated.

- Academic Committee
- Internal Complaints Cell
- Time Tables Committee
- Anti–Ragging Committee
- Grievance Redressal Cell
- Admissions Committee
- Sc/ST Committee
- Career Guidance & Placement Cell

Library Advisory Committee

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

6.2 Strategy Development and Deployment

6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

Response:

The strategic plan serves as an action plan to enhance the institution's effectiveness by evaluating outcomes, focusing on measuring student learning and institutional operations. The process should include soliciting input from across campus and local communities. A strategic plan should guide all departments on key focus areas. Our college successfully implemented this aspect of the Strategic Plan through the following initiatives:

Institutional Strategic Plans:

- 1. Efficient Teaching-Learning Methodology
- 2. Effective Leadership and Participative Management
- 3. Proactive Internal Quality Assurance Cell
- 4. Ensuring Effective Governance
- 5. Student's Overall Development through Participation
- 6. Employee Advancement & Welfare
- 7. Proper Discipline
- 8. Women/Student/Faculty Grievance
- 9. Financial Planning & Management
- 10.MOUs
- 11. Encouragement of Budding Entrepreneurs
- 12. Constant Growth in Research and Development
- 13. Alumni Interaction and Outreach Activities
- 14. Augmenting Physical Infrastructure

Deployment:

The college takes initiatives to implement the above strategic plans for better utilization of available human resources and infrastructure. Students' academic excellence, empowerment, and welfare are of prime importance while formulating the strategic plan. Deployed events include the Preparation of a calendar of events, Induction program, Cyclic AQAR reports, AAA, Events organized by IQAC/NSS/NCC/various departments/Committees, etc.

Administrative Setup:

Karnatak University has established administrative strategies and directed the Principal to implement and execute the rules and regulations to achieve the institution's goals, vision, and mission. At the college level, the administrative hierarchy is headed by the Principal, followed by the HODs of various departments and non-teaching staff. Departmental hierarchy is headed by HOD, (Headship is assigned on a two-year rotation basis). If there are no permanent teaching staff in the department, the parent department HOD/Coordinator will oversee the department. The formal organizational structure of the library consists of the Librarian, Assistant Librarian, and other subordinate staff.

Recruitment Procedure:

Karnatak Science College is a constituent college of Karnatak University, Dharwad. Permanent teaching and non-teaching posts are filled by the University following UGC and KCSR rules. Candidates are selected based on merit by the appointment committee. If the department has insufficient permanent teaching faculty, the remaining workload is distributed to temporary teaching Assistants/guest faculties. Temporary posts are appointed by Karnatak University. Temporary non-teaching posts are filled on a contract basis. Promotion of permanent teaching staff is made through the Career Advancement Scheme (CAS) after fulfilling the required eligibility.

Service Rules:

The service conditions of permanent teachers, including appointments and promotions, are regulated by Karnatak University, Dharwad, as per UGC and Government of Karnataka regulations. The service rules of non-teaching staff are governed by the KCSR rules and the University's set of rules.

Grievance Redressal Mechanism:

The institute has its own grievance redressal committee for staff and students. The committee reviews received grievances and resolves them. Based on the severity of complaints, they are resolved within the time limit suggested by management. The identity of persons filing complaints in suggestion boxes is kept confidential. Decisions regarding suggestions are communicated to the related committee/cell or individual of the institute for further action.

File Description	Document
Upload Additional information	<u>View Document</u>
Institutional perspective Plan and deployment documents on the website	View Document
Provide Link for Additional information	View Document

6.2.2

Institution implements e-governance in its operations

- 1. Administration
- 2. Finance and Accounts
- 3. Student Admission and Support
- 4. Examination

Response: C. 2 of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3 Faculty Empowerment Strategies

6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

The Performance Appraisal System significantly aids in evaluating employees' performance, motivating them, analyzing their strengths and weaknesses, and ensuring better performance. The institution has adopted an effective performance management system, following two types of appraisal schemes suggested by UGC:

Teaching Staff:

• PBAS and "Self-Appraisal Report": All teaching faculty members fill the prescribed PBAS format for self-appraisal. The appraisal report is based on the annual performance of employees, including academic, research, and extracurricular activities. It consists of two main parts: Part-A covers general instructions, teaching activities, research activities, and contributions to books and laboratory manuals. Part-B includes students' feedback, assessment by the Head of the Institution, and remarks by the Vice Chancellor of KUD.

Non-Teaching Staff:

• All non-teaching staff members are assessed through annual confidential reports and performance

appraisals. The overall assessment is based on the cumulative grade by the Reporting Officer/HoD, leading to promotions with financial upgrading upon satisfactory performance.

Effective Welfare Measures for Teaching and Non-Teaching Staff: The institution effectively implements welfare schemes for staff and makes arrangements for availing government schemes. Additionally, the following benefits are provided: Financial Support:

- Support for attending national-level workshops and conferences.
- Provident Fund and leave facilities for temporary staff.
- Group insurance schemes.
- Free healthcare services in the pharmacy for staff and their families.
- Reimbursement of medical expenditures.
- Cooperative Society provisions loans at subsidized rates for employees and teachers.

Material Benefits:

- Individual cabins with Wi-Fi for faculty.
- Quarters for both teaching and non-teaching staff close to the college premise and University campus.
- Nominal prices for accessing research data from USIC (University Scientific Instrumentation Centre).
- Well-equipped research laboratories.

Emotional Needs:

- Indoor games, gym facilities, and Staff Club activities.
- Awards of excellence for teaching, research, and extension.
- Job offers on compassionate grounds for spouses or family members of non-teaching staff.

Avenues for Career Development and Progression:

- Promotions under Career Advancement Scheme for teaching staff.
- Promotion opportunities for non-teaching staff.
- Initiation and training programs for newly recruited staff.
- Provision of seed money for faculty to undertake research projects.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

6.3.2

Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 3.21

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
02	00	00	08	06

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format	View Document
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	View Document
Audited statement of account highlighting the financial support to teachers to attend conferences / workshop s and towards membership fee for professional bodies	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3.3

Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Response: 4.3

6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), *Management Development Programmes (MDPs)* professional development /administrative training programs during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
05	04	12	05	07

6.3.3.2 Number of non-teaching staff year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
54	54	54	54	54

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	View Document
Institutional data in the prescribed format	View Document
Copy of the certificates of the program attended by teachers.	View Document
Annual reports highlighting the programmes undertaken by the teachers	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.4 Financial Management and Resource Mobilization

6.4.1

Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

Response:

Response

Mobilization of funds:

The institution mobilizes the funds from various sources like, collection of fees from the students, Salary grant from the Government and Grants from UGC. Details as follows.

Fees:

• Student fees constitute the institution's main income. The College maintains an affordable fee policy, collecting fees from students in accordance with university and government regulations.

Details of Government and non-Government sources.

Year	Internal source	es .	Government	
	Fees collected from	Amount (Lakh)	Sources	Amount
2022-23	Students	149.72	Government of	42.75
			Karnataka	
2021-22		116.34	Nil	Nil
2020-21		120.83	KUD	3.00
2019-20		71.57	Nil	Nil
2018-19		69.23	Government	421.24
Grand Total		527.7	State and Central	466.99
			Govt.	

Salary Grant:

• The staff of Karnataka University, including those in the account section, prepares the Annual Budget submit it to the State Government and receive salary grants for the College.

UGC Grants:

• The College holds 2F and 12B status under the UGC Act, ensuring it receives grants for infrastructure and research projects aiding in development and maintenance.

Research grants:

- Most staff members are recognized as research guides by Karnatak University, Dharwad.
- Several have been sanctioned major and minor research projects from governmental and non-governmental funding agencies such as UGC, DST, DBT, SERB, NMPB, etc.
- Additionally, KUD has allocated seed money to 06 staff members providing Rs. 50,000 each during the 2021-22.

Year	Research Grant	Amount (Lakh)
2022-23	Funding Agency KUD, Dept. of Forest Karnataka Govt., IT/BT&S/T	42.75
	Govt. Of Karnataka	
2021-22	Nil	Nil
2020-21	K.U.Dharwad	3.00
2019-20	Nil	Nil
2018-19	Government	421.24
	SERB/VGST	
Grand Total	Government	466.99

Optimal utilization of resources:

• A comprehensive budget is drafted prior to each academic year covering operational, administrative and fixed asset maintenance expenses. The Gymkhana oversees cultural and co-curricular activities with allocated budgets for each.

Conducts financial audits

- The College diligently maintains finance and accounts, following the government audit mechanism as a constituent college of Karnatak University, Dharwad. Regular checks are conducted on expenditures from college funds and the university's finance department.
- The Institution conducts annual internal and external audits to ensure financial compliance. Internal audits are conducted by the university's financial committee, thoroughly verifying income, expenditure and compliance. Additionally, external audits is also done by Chartered Accountants.

The mechanisms used to monitor effective and efficient use of financial resources are as below:

- University circulates a circular to the college, one week in advance to prepare the bills, vouchers and other relevant documents on budget allocations.
- College budget includes recurring expenses such as , electricity, internet charges, maintenance cost, stationery, other consumable charges etc., and non-recurring expenses like lab equipment purchases, furniture and other development expenses.
- The group of auditors visits the departments of the college and completes the auditing process.

Process of the internal audit:

• All vouchers are audited by an internal financial committee on a half yearly basis. The expenses incurred under different heads are thoroughly checked by verifying the bills and vouchers. If any discrepancy is found, the same is brought to the notice of the Principal.

Process of the external audit:

- The college's accounts undergo regular audits by a chartered accountant. The auditor verifies authorized payments with reports sent to the University for Review.
- Queries during audits are promptly addressed with supporting documents within stipulated timeframes.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

6.5 Internal Quality Assurance System

6.5.1

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the

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quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Response:

Response

The IQAC is a key policy-making unit in our college dedicated to enhancing infrastructure and faculty support to meet higher education standards and student needs. It evaluates and recommends quality education parameters, established post-accreditation by NAAC for sustained quality assurance.

- The IQAC cell of our college works towards improving and maintaining the quality of education by identifying and suggesting new ways of using teaching aids, developing suitable infrastructure and offering suggestions for the start of new self-finance courses in the college.
- IQAC is an effective and efficient internal coordinating and monitoring mechanism. The IQAC meets twice in a year in order to plan, direct, implement and evaluate the teaching, research and publication activities in the College.
- The sub-committees dealing with various activities and departments implement the IQAC guidelines and report the feedback.
- Significant improvements in quality have been made by institutionalizing the following IQAC initiatives:

Strategic planning of key areas and assigning responsibilities:

Academic and Administrative Audit through IQAC:

- The University conducts an academic audit of the college, wherein each department, office, library, hostel and health centre is audited every year through IQAC, in order to increase and maintain the quality of education and student support facilities.
- As per the guidelines of the Karnatak University, Dharwad the Principal prepares a list of experts
 consisting of 10-15 members and gets approval from the Vice-Chancellor and then, the Principal
 sets up a committee with three recommended experts to assess the academic and administrative
 matters of the college.
- The committee collects the academic plan and work done in each department, college office and other supporting units in the college, including publication, extension activity, collaborations, innovative, best practices, assignments, ICT based activity, student's competitions, seminars and workshops for better performance.
- The expert committee submits its evaluation report to the Principal and the IQAC. The same is placed before the HODs, in a meeting called for discussion of the same for suggestions and approval. The IQAC in turn strives to implement the suggestions made by the AAA committee in its report.
- As a result of implementation of suggestions made by the academic audit committee it is found
 that all departments have been constantly improving their curricular, co-curricular and research
 activities.
- The IQAC has submitted the AQAR report for the year 2021-22.

Use and enrichment of ICT infrastructure:

- The use of ICT tools has become an integral part in teaching-learning process. IQAC has always encouraged teachers to utilize these tools in classroom teaching and laboratories. IQAC plans and encourages all the staff members to use and enrich the ICT facilities in each department.
- The IQAC monitors the periodical maintenance of ICT facility and its upgradation. All the staff members in the different departments of the college are provided with broadband internet and Wi-Fi facility.
- IQAC reaches out to all the students. IQAC advises the staff members to effective use of social media tools like WhatsApp, YouTube, E-mail, text messages, Google forms, online classes etc., to educate as well as communicate with the students regarding their curricular, co-curricular activities and the sharing of study materials.
- Feedback mechanism has been effectively implemented through online mode for the teachers, parents and students.

Outcome: Able to reach students in quick and effective manner.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

6.5.2

Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented
- 2. Academic and Administrative Audit (AAA) and follow-up action taken
- **3.** Collaborative quality initiatives with other institution(s)
- 4. Participation in NIRF and other recognized rankings
- 5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

Response: A. Any 4 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	<u>View Document</u>
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date.	View Document
Link to Minute of IQAC meetings, hosted on HEI website	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

Response:

The motto of our institution is to provide equal opportunity, empowerment and rewards for both boy and girl students and the teaching faculties irrespective of gender. Girl students have been ensured for the participation in co-curricular, sports and other extension activities.

GENDER EQUITY AND SENSITIZATION IN CURRICULAR AND CO-CURRICULAR ACTIVITIES

- The institution provides equal opportunity to the girl students to participate in all co-curricular activates by selecting a student secretary for the various GYMKHANA departments based on their merit, rather than gender.
- Two Girl Students representatives as a member in IQAC Composition.
- One to two female student representatives selected as members in all statutory bodies such as the Student Grievance Redressal Committee, Anti-Ragging Committee, Discipline Committee, Prevention of Sexual Harassment Committee, SC/ST Committee, etc.
- Girl students selected as secretaries for the Science Association and the College Varnasaptaka (College Miscellany).
- More number of girl students has been encouraged to become NCC cadets and NSS Volunteers. This helps them to become stronger and learn the leadership quality.
- This method removes the disparity among male and female students and provides an opportunity for them to involve in all curricular and co-curricular activities.

SAFETY AND SECURITY FOR WOMEN:

- Surveillance: The Institute has 24×7 security guard and at least one lady security guard in the campus along with high tech CCTV cameras in the prime areas. This makes the girl students free to make use of the 24×7 reading room of the campus.
- Women Empowerment Cell: To address girl student's grievances, and to expose them to knowledgeable and relevant personalities from different spectra of the society, a women empowerment cell has been established with the name "AKKA Association".
- **Discipline in the Campus:** To ensure the safety in the campus and to monitor all the activities of staff and the students in the Institution, the discipline committee is formed.
- SNEHA Counselling Cell: No student is to be discriminated based on their gender. In order to

provide moral strength to both boy and girl students SNEHA counselling cell has been established which includes all the ladies teaching staff with a motive to have constant touch with all the students.

FACILITIES FOR WOMEN ON CAMPUS:

- **Hostel facility:** To strengthen the girl students for higher education, the Institute has two hostels meant exclusively for girls who are from different parts of the state and across the country. The campus also possesses the state-run backward castes and minority (BCM) girl's hostel. All these facilities make girl students come forward to acquire higher education.
- Medical facility: The Institute has exclusive health centre for the students. The health centre has dedicated supporting staff viz., highly qualified doctor, staff nurse / sister, supporting staff etc. The health centre also has the provision of having visiting doctor/ specialized doctors for addressing the specific issues. This facility provides excellent service to the girl students, who are much vulnerable to anxiety, stress, and not able to cope up with the things.
- **Rest Room:** The institution has Rest room for girls students, which including the basic facilities like well maintained toilets. This Rest Room is also equipped with reading room facility
- The institution periodically conducts curricular and co-curricular programmes to sensitize faculty and students regarding our policy of gender equity.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

7.1.2

The Institution has facilities and initiatives for

- 1. Alternate sources of energy and energy conservation measures
- 2. Management of the various types of degradable and nondegradable waste
- 3. Water conservation
- 4. Green campus initiatives
- 5. Disabled-friendly, barrier free environment

Response: A. 4 or All of the above

File Description	Document
Policy document on the green campus/plastic free campus.	View Document
Geo-tagged photographs/videos of the facilities.	View Document
Circulars and report of activities for the implementation of the initiatives document	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.3

Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

- 1. Green audit / Environment audit
- 2. Energy audit
- 3. Clean and green campus initiatives
- 4. Beyond the campus environmental promotion activities

Response: B. Any 3 of the above

File Description	Document
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	View Document
Policy document on environment and energy usage Certificate from the auditing agency	View Document
Green audit/environmental audit report from recognized bodies	<u>View Document</u>
Certificates of the awards received from recognized agency (if any).	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.4

Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of

students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Response:

Response

Our institution upholds the tolerance and harmony towards cultural, regional, linguistic, communal, socioeconomic and other diversities among the students and staff members.

Tolerance and harmony towards cultural:

The institute organizes the cultural programs under the banner of Gymkhana to promote and appreciate the cultural diversity of India.

- Students admitted in the college are from diverse cultural backgrounds. They are brought together on a common platform to engage in various cultural activities, leading to fostering self-esteem.
- The Cultural Committee of our college inspires students to participate in different cultural activities such as Yuvajanotsava, singing competitions, folk group singing, mimes, dramas, skits, and traditional Karnataka festivals like Kannada Rajyostava, Dasara, etc.
- 198 college students competed in cultural events at National, Inter-University, South Zone, Inter-Zone Youth Festival, Inter-Collegiate, Inter-Zone, and District levels. Out of the total participants 93 students won prizes.

Tolerance and harmony towards Regional and Linguistic Harmony:

- Programs related to regional harmony are regularly celebrated in the institute, such as Dasara (state festival), Ganesh Chaturthi, Kannada Rajyoshtava, Basava Jayanti, fun week, among others.
- The institute is known for offering various languages of India including Kannada, Marathi, Hindi, Sanskrit, etc., as well as the foreign language French. This facilitates the organization of different essay and debate competitions in multiple languages.
- The college organizes workshops, webinars and conferences in indigenous languages such as Hindi, Kannada, and English. Celebration International Yoga day and World Environmental Day

Tolerance and harmony towards Communal/Socio-economic:

- College associations conducted various communal and socio- economic programs to sensitized the students through the following activities.
- Programs to sensitize students through communal and socio-economic activities, involving Akka, Science, Study circle, NCC, and NSS units.
- NSS unit observed Sadbhavana Diwas, promoting national integration and communal harmony among people of all religious, languages and regions.
- The NSS unit has conducted many social welfare programs, like distributing of face mask in the market area and creating awareness about hygiene.
- The NSS unit visits the village for cleaning the lake/pond and also educates the village people not to throw plastic material into it.
- The NSS unit conducts special camps every year in the village enabling the students to learn

about the importance of serving the society.

- This exposes the students to current issues or problems present in the society/village and this makes them to think in this direction leading to solutions.
- Celebration of Karnatak College founder's day
- Celebration Anti- Tobacco and World diabetic ay

Constitutional obligation: values, rights, duties and responsibility of citizens:

- Blood Donation Camp
- Free dental Health Check-up Camp
- AIDS Awareness Rally Participation in Fit India Movement
- IT Awareness Programme for school students.
- Celebration anti Tobaco day
- Free Covid Vaccination drive

Constitutional obligations:

The following are the major programmes conducted to preserve the constitutional obligations.

- Constitutional Obligations is created through Awareness programmes and rallies with and outside the campus outside the college.
- Voting Awareness Rally.
- Demonstration of Sweep Voting Machine.
- Celebration of Constitutional Day.
- Poster Exhibition on Preamble of India
- Exhibition of Constitution books in the central library on the eve of Dr. B.R. Ambedkar Jayanti

Awareness Activities:

- Anti- Ragging Rally.
- Invited lecture on Consumer Act
- Lecture on Code of Conduct for staff members
- Workshop on IPR Copy rights and Trade Mark

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

7.2 Best Practices

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format

provided in the Manual

Response:

Repsonse

Best Practice-I

TITLE OF THE PRACTICE: SOLID WASTE MANAGEMENT AND CREATING ECO-FRIENDLY CAMPUS: NEW TECHNOLOGY

Karnatak Science College has a wide spread green campus with fifty five acres, having good green cover. To maintain cleanliness in the campus, it has adopted a best practice called *solid waste management and creating eco-friendly campus*

Objectives of Practice:

- To meet the requirements of a green and clean campus, waste-generating areas have been identified and measures have been designed and implemented to maintain cleanliness on the college campus.
- Dustbins have been provided to segregate wet and dry solid waste at designated locations on the campus.
- Dry waste is collected in collaboration with the city municipal corporation, while wet waste is used for composting.
- The compost generated is utilized in the college's botanical garden.
- Waste management is achieved in a non-polluting and responsible manner.
- Efforts are underway to establish renewable energy sources such as rooftop solar power plants on campus.
- Campus green auditing and carbon sequestration initiatives have been undertaken.

Context:

- Due to scarcity of non-renewable energy, it is high time to focus on renewable sources.
- In this context, the above said practice is implemented and practiced to **generate biogas** in the college campus.
- We can use generated **biogas fuel as alternate eco-friendly substitute** for energy utilized in the campus; further, energy can be conserved in college campus.
- In a small way to contribute towards the nation's energy saving plans, the institution has constructed its own Bio-Gas plant for degradable waste management in the college campus.
- By installing a Biogas plant in the campus, the degradable solid waste can be effectively managed.

The Practice:

i) Identification of waste generating area:

• Waste generating locations like cafeteria, students home, and laboratories, vehicle parking slots, hostels, bank, health centre and locations have been identified and dustbins are installed for the

collection of waste.

• Dry solid waste is emptied by the municipal corporation, whereas the wet waste is dumped in pits composting and compost is used for the garden.

ii) Vermi Compost Pit:

- Department of Microbiology practices vermi compost technology under best practices.
- The degradable waste like leftover eatables and dried leaves generated from department garden is used as raw material for vermin compost.
- These raw materials are added every day (leftover eatables) and dried leaves are added every week to the vermin compost pit.

iii. Harnessing Solar Energy:

- Installed capacity in hostels: 6 units of 500 litre each capacity (equivalent to 120 electric geysers of 25 litre capacity each)
- One Solar panel to recharge UPS system of 2kVA capacity.
- Eleven Solar street lights are provided in the campus.

Utility of Biogas:

- The generated biogas is been used by Microbiology, Zoology and Industrial Fisheries laboratory work as an alternative to LPG.
- The digested slurry from the bio-gas plant is been used as an organic manure in the campus garden.

Evidence of Success:

The process of carbon sequestration reveals the reduction of carbon dioxide concentration in the atmosphere of the campus.

- Harnessed solar energy has reduced our dependency of non-renewable energy sources like electricity. This facility has benefited nearly 700 girl students in the hostel.
- 2kVA Solar energy recharging UPS has been installed, and it can be used for four hours, uninterruptedly.
- Harvested rain water has enriched the ground water situation and the excess amount of water is used for gardening.

Problems Encountered and Resources Required ::

- The financial support is required for the installation of the biogas unit.
- Trained human resources are also very essential to maintain the plant.

Best Practice-II

TITLE OF THE PRACTICE: ENCOURAGING UNDER GRADUATE STUDENTS IN RESEARCH AND DEVELOPMENT AND CREATE SCIENTIFIC TEMPER

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OBJECTIVE OF THE PRACTICE:

- Create scientific curiosity; this encourages students to think about developing new techniques, which are very much required for the current situation. Additionally, this encourages students to dedicate themselves to working in the direction of "ATHMANIRBHAR BHARAT."
- Expose B.Sc and M.Sc students to esteemed professors from IITs and premier institutes by arranging seminars and lecture series.
- Arrange platforms for students to interact with scientists who are working on cutting-edge research.
- Arrange for students to visit industries and R&D centers to instill interest in science and technology through study tours.

Context:

- Although with updated academic syllabi and practical experience, it is difficult to capture students' attention for R&D. Most of the time students may not be aware of the advanced technologies adopted in large-scale industries and the cutting-edge research happening around the globe. Hence, it is the institutional responsibility to create platforms in such a way that students have the opportunity to interact with scientists. In this context, the Institute instituted study circles in all departments.
- Under the Madam Curie study circle a lecture was arranged on processing technology. Dr. Shivakumar Angadi, Principal Scientist and Associate Professor at the Academy of Scientific and Innovative Research (ACSIR), Mineral Processing Department, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar, Odisha, gave a lecture on Mineral Processing. The B.Sc semester students visited PEPSI Co. Ltd., where they observed how small pieces of plastic/fiber are transformed into bottles of different sizes.
- Students of Forensic Science and Criminology Dept.visited a suburban police station, Dharwad to gain practical experience of its structure, organization, administration and function. They interacted with Police Sub-Inspector Mr. Patil and Mrs. Laxmi PSI, gaining insight into real-time investigation processes.
- Students of Physics Dept. were encouraged to engage in recent developments in the field by participating in the National Graduate Physics Examination, organized in association with the Indian Association of Physics. Qualifying students were sent for workshops/training programs in premier research institutes.
- Students of Zoology Department were encouraged to undertake research on bioremediation of Cadmium and Chromium from industrial effluents using indigenous bacteria. They have participated in the **Indian Young Innovators and Inventors Challenge (IYIIC) Regional IYIIC-2021**, where they presented a poster and were awarded as Best Juvenile Innovator/Inventor. They were subsequently selected for the National Event of IYIIC held at Sigma University, Vadodara, and Gujarat.

Evidence of Success:

- The great encouragement in research and development among graduate-level students has resulted in active involvement in conducting research alongside their studies.
- This is demonstrated by their selection in IYIIC and achievement of the Best Juvenile Innovator award, enabling them to participate in the next-level research program.

Problems encountered. Nil

File Description	Document
Best practices as hosted on the Institutional website	View Document
Any other relevant information	View Document

7.3 Institutional Distinctiveness

7.3.1

Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

The growth of our nation is dependent on the innovative ideas and creation of resources and the effective use of natural resources available in this direction:

Recognize as a Research Centre:

- Karnatak Science College is recognized as a research center by Karnatak University. This institution is unique in contributing significantly in the field of Research and Development. College is not only known for its high standard of academic performance, but is also recognized for the high quality of research undertaken by its faculty members, which is on par with state and central universities in the country.
- In fact, the research done by teachers of our college is not only related to basic science, but the faculties are actively involved in interdisciplinary and multidisciplinary research areas.

Research Guides and Specialization:

- Twenty six faculties are recognized as research guides by the Karntatak University, for supervising students for the award of Ph.D degree.
- The college has ten departments, and nine departments have been recognized as research centers by the Karnatak University, Dharwad.
- The college is undertaking high level research in diverse fields; for example, from Physical Sciences (Chemistry, Physics and Mathematics), the faculties are engaged in wide areas of research viz, in synthesizing effective drug molecules, preparing bio-fuels from non-edible seeds, developing methods for eco-friendly electrodes and in identifying bioactive molecules in plants and in the departments of life sciences have focused on medicinal aromatic plants, the biosystematic, microbiological evaluation and bioinformatics.
- From Physical sciences and life sciences, on an average, every year more than 40 research articles are published in reputed international and national journals.
- The Karnatak Science College is also known for its uniqueness in having subjects like Forensic

sciences and Geology as major subjects. The departments of earth sciences viz., Geography, Geology are also involved in highly advanced research activities.

Number of Ph.D Awarded:

• On an average, every year four to five research scholars of this institution get Ph.D award from Karnatak University, Dharwad.

Research Papers Published:

- Our staff members have published 314 research papers over the past five yearsOur staff members have published 314 research papers over the past five years
- The staff members are having h -index which range from 3 to 21 and the journal impact factor of their publications vary from 0.35 to 10.5.
- As our college conducts highly advanced research in all areas of Science, it is highly unique and distinctive feature of the college whose faculty members mainly involve in teaching at the undergraduate course level, although there are four post-graduate departments as well.

Research Projects:

- The Karnatak Science College is one of the institutions in the region which gets ample amount of research grants from various national and state level funding agencies.
- 8 teachers have been sanctioned with major and minor research projects by DST-SERB/ UGC, VGST and KUD over the past five year.
- The Institution has received more than three crore (Indian rupees) from various funding agencies, viz., DST-SERB, UGC and VGST among many others. The institution possesses sophisticated instruments viz., cold centrifuge machine, UTM (Universal Testing Machine), deep freezer, Cyclic Voltametry, Roto-evoporator, and Hydraulic press.

Participation of Staff and Research Scholars in Research Related Events:

- Faculties and research scholars of our Institution are actively participating in national and international conferences, seminars and workshops conducting across the country.
- The faculties and research scholars have been awarded Young scientist award, best oral and poster presentation award and best research work presentation in various conferences and seminars.

File Description	Document
Appropriate web in the Institutional website	View Document
Any other relevant information	View Document

5. CONCLUSION

Additional Information:

The unique feature of the college consists of five well-equipped and maintained museums. Department of Botany, Geology, Geography, Forensic Science and Criminology and Zoology have well maintained and preserved the rare collection of various plants, minerals, rocks and fossil specimens, three-D Models, wax models animal specimens.

- The Department of Zoology was established in 1934. It is one of the largest museums in Karnataka, well-furnished with a large collection of specimens. Started in 1947 by Prof. P.W. Gideon a renowned taxidermist, the museum attracted the attention of Padmabhushan Dr. Salim Ali, a distinguished ornithologist, during his visit in 1972. He was greatly excited to see the rare Malabar trogan bird in this esteemed Zoology Museum. Our museum showcases various types of vertebrate and invertebrate animals, with around 2500 animals on display. Each day, numerous students from schools, colleges, universities, and the public from different states/countries visit our Zoology Museum to learn about different, rare, and unique specimens of fishes, amphibians, reptiles, birds, and mammals. This museum plays an important role in displaying and preserving various animal specimens of great scientific significance and educating students and the public about the animal kingdom.
- The Botany Department's museum, organized into seven sections, covers a wide array of botanical subjects. Besides, the department actively promotes community well-being through education and initiatives like nursery development, carbon sequestration, and environmental cleanliness. With a herbarium housing over 10,000 specimens, including the extinct Isoetes dixtii Shinde, it serves as a valuable resource for botanical research and conservation efforts.
- The Department of Criminology and Forensic Science hosts a well-maintained museum with rare collections. It includes wax models, photographs of pioneers, charts on accidents, and specimens such as fingerprints and toxicological samples.
- The Geology Department's museum showcases systematically arranged mineral, rock, and fossil exhibits, complemented by maps, models, charts, and rare specimens, providing a rich educational experience in geological science
- The Department of Geography's museum, established in 1937 by Dr. C.D. Deshpande, features Three-D Models, weather instruments, disaster models, rocks, minerals, earth interior models, charts, maps, and portraits of pioneering geographers, offering a unique and comprehensive display of geographical science.

Concluding Remarks:

The college demonstrates a clear alignment between governance and leadership, ensuring harmony with its vision and mission. These align with higher education objectives. Governance is democratic and decentralized, with participatory leadership in both administrative and academic affairs. The Governing Council oversees teaching, research, and evaluation standards. The Purchase Committee handles procurement, while the Building and Works Committee manages infrastructure development.

The Institution conducts annual internal and external audits for financial compliance. The University adopts egovernance for planning, administration, finance, student admission, and examinations. Regular academic and administrative audits are conducted. The IQAC spearheads quality initiatives in academics, research, and

extension activities. It organizes professional development programs and capacity-building for staff. The college implements aspects of CBCS and the New Education Policy.

The IQAC and College Development Committee plan the college academic calendar, integrating Continuous Internal Evaluation (CIE) across curricular, co-curricular, and extracurricular activities. The college has adopted a feedback mechanism on academic performance and institutional ambience from various stakeholders, including students, teachers, employers, and alumni. Top of Form

The institution lists program and course outcomes on its website and shares them with teachers and students

The College boasts modern IT infrastructure supporting teaching, research, administration, and support processes. The college has a registered alumni association, named as 'Karnatak Science College Alumni Association, Dharwad. A strategic plan drives institutional effectiveness, focusing on outcome evaluation. The Performance Appraisal System evaluates employee performance, motivating, analyzing strengths and weaknesses, and ensuring improved performance.

The institution gathers funds from various sources: student fees, government salary grants, and UGC grants. Its motto is to provide equal opportunity and rewards for all students and faculty, irrespective of gender. Female students are encouraged to engage in co-curricular and sports activities. The institution promotes tolerance and harmony among students and staff, embracing diversity. With a sprawling green campus spanning fifty-five acres, it maintains cleanliness through solid waste management, aiming for an eco-friendly environment.

"With the unremitting efforts of the team, students, and other teaching staff, the college is steadfastly moving towards the future with a determination to provide quality education".

6.ANNEXURE

1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Answer before DVV Verification : Answer After DVV Verification :21

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- 1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years
 - 1.2.2.1. Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
443	162	86	90	71

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
443	83	86	90	71

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)
 - 1.3.2.1. Number of students undertaking project work/field work / internships

Answer before DVV Verification: 618 Answer after DVV Verification: 592

Remark: As per SOP, One student involved in multiple field works and/or project work and/or internship in the same academic session should be counted as one so based on that DVV input is recommended.

2.1.1 **Enrolment percentage**

2.1.1.1. Number of seats filled year wise during last five years (Only first year admissions to

be considered)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
861	815	556	546	583

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
861	813	556	546	583

2.1.1.2. Number of sanctioned seats year wise during last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
881	829	560	570	598

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
881	829	560	570	598

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

2.1.2 Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

2.1.2.1. Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
422	399	265	273	284

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
422	397	265	273	284

2.1.2.2. Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
441	415	280	285	299

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
441	415	280	285	299

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- 2.4.2 Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)
 - 2.4.2.1. Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
81	87	85	74	64

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
77	76	74	65	61

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years
 - 3.2.2.1. Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years

Answer before DVV Verification:

20)22-23	2021-22	2020-21	2019-20	2018-19
11		06	12	07	07

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
03	02	02	01	00

Remark: As per the revised data and clarification received from HEI, Only those activities considered which is related to Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship so based on that DVV input is recommended.

Number of research papers published per teacher in the Journals notified on UGC care list

during the last five years

3.3.1.1. Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
102	83	56	35	38

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
59	44	30	22	18

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years
 - 3.3.2.1. Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings year wise during last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
2	5	3	1	1

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
1	1	3	1	1

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.
 - 3.4.3.1. Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
16	20	02	07	12

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
05	07	04	02	03

Remark: As per SOP, Only extension activities for the benefit of community will be considered thus DVV input is recommended.

3.5.1 Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Answer before DVV Verification:

Answer After DVV Verification:18

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- 4.1.2 Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years
 - 4.1.2.1. Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
50.30	27.13	47.11	48.49	392.70

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
48.94	6.13	45.77	48.41	391.29

Remark: As per provided CA Certificate thus DVV input is recommended.

- 4.3.2 Student Computer ratio (Data for the latest completed academic year)
 - 4.3.2.1. Number of computers available for students usage during the latest completed academic year:

Answer before DVV Verification: 187 Answer after DVV Verification: 192

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

4.4.1 Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)

4.4.1.1. Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
86.49	37.71	80.63	55.27	101.51

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
87.11	57.38	79.68	53.93	99.67

Remark: As per provided CA Certificate thus DVV input is recommended.

- Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years
 - 5.1.1.1. Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
2826	1825	974	982	224

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
1953	1825	974	982	224

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years
 - 5.1.3.1. Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
193	97	02	362	348

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
193	97	85	256	79

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

Percentage of placement of outgoing students and students progressing to higher education during the last five years

5.2.1.1. Number of outgoing students placed and / or progressed to higher education year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
117	247	234	169	250

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
198	353	247	194	199

5.2.1.2. Number of outgoing students year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
569	576	603	553	576

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
410	501	450	475	496

Remark: As per SOP, Multiple offers to the same students to be counted once so based on that DVV input is recommended.

5.2.2 Percentage of students qualifying in state/national/international level examinations during the last five years

5.2.2.1. Number of students qualifying in state/ national/ international level examinations year wise during last five years (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/GRE/TOEFL/ IELTS/Civil Services/State government examinations etc.)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
22	10	08	02	07

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
04	05	06	01	02

Remark: As per provided Certificates thus DVV input is recommended.

- Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years
 - 5.3.1.1. Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
66	70	00	61	23

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
03	00	00	02	05

Remark: As per SOP, Participation and Inter- collegiate certificates should not be considered so based on that DVV input is recommended.

- Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)
 - 5.3.2.1. Number of sports and cultural programs in which students of the Institution participated year wise during last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
75	82	00	80	35

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
03	06	00	01	02

Remark: As per SOP, Multiple activities on the relatively closer dates to be considered as one only so based on that DVV input is recommended.

6.2.2 Institution implements e-governance in its operations

- 1. Administration
- 2. Finance and Accounts
- 3. Student Admission and Support
- 4. Examination

Answer before DVV Verification : A. All of the above Answer After DVV Verification: C. 2 of the above

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- 6.3.2 Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years
 - 6.3.2.1. Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
03	00	00	09	06

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
02	00	00	08	06

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- 6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years
 - 6.3.3.1. Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
05	07	22	06	08

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
05	04	12	05	07

6.3.3.2. Number of non-teaching staff year wise during the last five years Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
54	54	54	54	54

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
54	54	54	54	54

Remark: As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

- Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following
 - 1. Green audit / Environment audit
 - 2. Energy audit
 - 3. Clean and green campus initiatives
 - 4. Beyond the campus environmental promotion activities

Answer before DVV Verification : A. All of the above Answer After DVV Verification: B. Any 3 of the above

Remark : As per the revised data and clarification received from HEI, Based on that DVV input is recommended.

2 Extended Profile Deviations

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Z.EXU	enaea Prom	e Deviauoi	18						
ID	Extended Questions								
1.1	Number of teaching staff / full time teachers during the last five years (Without repeat count):								
	Answer be	Answer before DVV Verification: 102							
	Answer aft	Answer after DVV Verification: 138							
1.2	Number o	Number of teaching staff / full time teachers year wise during the last five years							
	Answer be	fore DVV V	erification:			-			
	2022-23	2021-22	2020-21	2019-20	2018-19				
	102	108	101	92	96				
	Answer At	fter DVV Ve	rification:						
	2022-23	2021-22	2020-21	2019-20	2018-19]			

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