

INSTITUTIONAL ASSESSMENT AND ACCREDITATION (Effective from July 2017)

Accreditation - (Cycle - 3)

PEER TEAM REPORT ON INSTITUTIONAL ACCREDITATION OF INSTITUTE OF SCIENCE

Nagpur Maharashtra 440001

(Draft)

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL An Autonomous Institution of the University Grants Commission P.O. Box No. 1075, Nagarbhavi, Bengaluru - 560 072, INDIA

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Section I:GENERAL INFORMA	TION		
1.Name & Address of the	INSTITUTE OF SCIENCE		
institution:	Nagpur		
	Maharashtra		
	440001		
2.Year of Establishment	1909		
3.Current Academic Activities at			
the Institution(Numbers):			
Faculties/Schools:	1		
Departments/Centres:	20		
Programmes/Course offered:	3		
Permanent Faculty Members:	62		
Permanent Support Staff:	41		
Students:	1022		
1. Only three program are running		nning	
institutional Context	2. Good infrastructure		
(Asperceived by the Peer Team):	3. Institute trying to do better		
5.Dates of visit of the Peer Team	From: 17-05-2019		
(A detailed visit schedule may be	To: 18-05-2019		
included as Annexure):			
6.Composition of Peer Team			
which undertook the on site visit:			
	Name	Designation & Organisation Name	
Chairperson	DR. NAND KUMAR YADAV	Vice Chancellor, CENTRAL	
		UNIVERSITY OF JHARKHAND	
Member Co-ordinator:	DR. M KRISHNAIAH	Professor,SRI PADMAVATHI	
		MAHILA VISWA	
		VIDYALAYAM CO-	
		ORDINATOR, PHYSICAL	
		SCIENCES	
Member:	DR. KAVITA SHAH	Professor,BANARAS HINDU	
		UNIVERSITY	
NAAC Co - ordinator:	Dr. Darikhan Kamble		

Section II: CRITERION WISE ANALYSIS

Observations (Strengths and/or Weaknesses) on each qualitative metrices of the key Indicator under the respective criterion(This will be a qualitative analysis of descriptive nature aimed at critical analysis presenting strength and weakness of HEI under each criteria)

Criterion1 - Curricular Aspects (Key Indicator and Qualitative Metrices(QlM) in Criterion1)				
1.1	Curricular Planning and Implementation			
1.1.1	The institution ensures effective curriculum delivery through a well planned and documented			
QlM	process			
1.2	Academic Flexibility			
1.3	Curriculum Enrichment			
1.3.1	Institution integrates cross- cutting issues relevant to Gender, Environment and Sustainability,			
QlM	Human Values and Professional Ethics into the Curriculum			
1.4	Feedback System			

Qualitative analysis of Criterion 1

The Institute is affiliated to R.T.M. Nagpur University and offers the programs designed and quantified by affiliating University. As declared in SSR, delivery of curriculum is attempted through application oriented, hands-on experience on learning, an optimistic and constructivist approach to teaching-learning with the use of information and communication technology, internet and online resources.

The institute regularly carries out its own continuous and comprehensive internal evaluation to evaluate the progress and outcome of the teaching and learning included in the University's credit /scores awarding systems. Inputs from the evaluation, teacher's observation and student feedback are used to make corrections in the teaching and delivery of the curriculum. Students are encouraged to take learning beyond the textbooks and classrooms by participating in a

number of academic and co-curricular activities, community interaction, personality and skill improvement programs.

Environment Conservation and Sustainable Development program are included in the curriculum. Other programs like Gender equity, Human values and Professional ethics are integrated with the curriculum in a variety of ways by organizing programs, courses, activities and events to nurture and inculcate these values.

Criterion	2 - Teaching-learning and Evaluation (Key Indicator and Qualitative Metrices(QlM) in Criterion2)	
2.1	Student Enrollment and Profile	
2.2	Catering to Student Diversity	
2.2.1	The institution assesses the learning levels of the students, after admission and organises special	
QlM	programs for advanced learners and slow learners	
2.3	Teaching- Learning Process	
2.3.1	Student centric methods, such as experiential learning, participative learning and problem solving	
QlM	methodologies are used for enhancing learning experiences	
2.3.4	Innovation and creativity in teaching-learning	
QlM		
2.4	Teacher Profile and Quality	
2.5	Evaluation Process and Reforms	
2.5.1	Reforms in Continuous Internal Evaluation(CIE) system at the institutional level	
QlM		
2.5.2	Mechanism of internal assessment is transparent and robust in terms of frequency and variety	
QlM		
2.5.3	Mechanism to deal with examination related grievances is transparent, time-bound and efficient	
QlM		
2.5.4	The institution adheres to the academic calendar for the conduct of CIE	
QlM		
2.6	Student Performance and Learning Outcomes	
2.6.1	Program outcomes, program specific outcomes and course outcomes for all programs offered by	
QlM	the Institution are stated and displayed on website and communicated to teachers and students	
2.6.2	Attainment of program outcomes, program specific outcomes and course outcomes are evaluated	
QlM	by the institution	
2.7	Student Satisfaction Survey	

Teaching, learning and evaluation are in accordance with the institution's mission and the objectives. Efforts are made to align the teaching-learning process so as to cater to the needs, interests as well as the abilities of the students.

Teachers make special efforts to cater to the needs of slow and advanced learners by using the student-centric methods such as experiential learning, participative learning and problem-solving techniques to enhance the learning experience. The regular classroom teaching is supplemented by assignments, field visits and projects. Use of online resources and communities, expert talks, guest lectures by eminent and experienced exfaculty members and scientists further consolidate the teaching-learning process. The institute uses its own means of conventional and non-conventional ways of internal assessment and evaluation rather than depending fully on the assessment of the University to supplement the final University assessment.

This internal assessment mechanism is ok in terms of frequency, variety and transparency. The institution also has a grievance redressal mechanism to deal with the assessment related concerns.

The Institute strictly adheres and makes efforts to follow the annual academic calendar. It has prepared the program outcomes (POs), program specific outcomes (PSOs) and course outcomes (COs) to measure the attainments of the students as a matter of planning and systematization for future programs.

The Institute has shown improvement in student performance in the University examination in the last five

years. The students of the Institute have brought laurels to the institute by securing 51 merit positions and 34 gold medals, 11 silver medals and 22 prizes in the university examination during last five years. Students have also fetched Best Student Awards from Nagpur University in recent years.

Criterion3 - Research, Innovations and Extension (Key Indicator and Qualitative Metrices(QlM) in			
Criterion3	Criterion3)		
3.1	Resource Mobilization for Research		
3.2	Innovation Ecosystem		
3.2.1	Institution has created an ecosystem for innovations including incubation centre and other		
QlM	initiatives for creation and transfer of knowledge		
3.3	Research Publications and Awards		
3.4	Extension Activities		
3.4.1	Extension activities in the neighbourhood community in terms of impact and sensitising students		
QlM	to social issues and holistic development during the last five years		
3.5	Collaboration		

The Institute has a large central library and a reading room with access to computers and peripherals and high-speed internet connectivity. It has the excellent infrastructure of subject specialized laboratories and workspaces for faculty members with modern advanced technological amenities.

The institute has qualified and academically active faculty members, 30 of them are recognized Ph.D. supervisors and advanced researchers in their own capacities. 91 students have been awarded Ph.D. degree during last five years.

The faculties have published 550 research papers in national and international journals of repute. Four faculty members have published patents and one patent being awarded.

The nature of extension activities by NSS unit of the institute include rallies and campaign, workshops, plantation, cleanliness drive, blood donation, health checkup camps, yoga camps etc. Students of the Institute regularly participate in University, State and National level NSS camps.

Criterion4	Criterion4 - Infrastructure and Learning Resources (Key Indicator and Qualitative Metrices(QlM) in		
Criterion4)			
4.1	Physical Facilities		
4.1.1	The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories,		
QlM	computing equipment, etc.		
4.1.2	The institution has adequate facilities for sports, games (indoor, outdoor),gymnasium, yoga centre		
QlM	etc., and cultural activities		
4.2	Library as a Learning Resource		
4.2.1	Library is automated using Integrated Library Management System (ILMS)		
QlM			
4.2.2	Collection of rare books, manuscripts, special reports or any other knowledge resources for library		
QlM	enrichment		
4.3	IT Infrastructure		
4.3.1	Institution frequently updates its IT facilities including Wi-Fi		
QlM			
4.4	Maintenance of Campus Infrastructure		
4.4.2	There are established systems and procedures for maintaining and utilizing physical, academic		
QlM	and support facilities - laboratory, library, sports complex, computers, classrooms etc.		

The institute has a wide campus with ample facilities and infrastructure for teaching-learning with spacious airy classrooms and laboratories with adequate natural light.

Hostel facility with mess for outstation boys and girls, canteen and girls common room is also available within institute premises.

It has stocked central library with a wide range of books on different subjects, e-library with a Wi-Fi network and internet access for students and staff.

The institute also has adequate sports facilities for indoor and outdoor games to ensure the good physical development of the students. Sports facilities include a huge ground for cricket, basketball, volleyball, handball, badminton and ball badminton, along with the indoor games like table tennis, chess etc.

Criterion5	Criterion5 - Student Support and Progression (Key Indicator and Qualitative Metrices(QlM) in Criterion5)		
5.1	Student Support		
5.2	Student Progression		
5.3	Student Participation and Activities		
5.3.2	Presence of an active Student Council & representation of students on academic & administrative		
QlM	bodies/committees of the institution		
5.4	Alumni Engagement		
5.4.1	The Alumni Association/Chapters (registered and functional) contributes significantly to the		
QlM	development of the institution through financial and non financial means during the last five years		

The Institute has mechanisms and systems of student support. A large number of students get the benefit under different government scholarship and free ship schemes with additional support from the active alumni association and university student welfare fund.

ecurity measures like CCTV, security guards are being adopted by the institution to ensure the safety and security of the students on the campus. Committees like anti-ragging, grievance redressal and women cell continuously work for the well-being and benefit of the students and resolve their issues regarding the ragging and sexual harassment.Institute is having Allumni Association.

Criterion	6 - Governance, Leadership and Management (Key Indicator and Qualitative Metrices(QlM) in		
Criterion	6)		
6.1	Institutional Vision and Leadership		
6.1.1	The governance of the institution is reflective of an effective leadership in tune with the vision		
QlM	and mission of the institution		
6.1.2	The institution practices decentralization and participative management		
QlM			
6.2	Strategy Development and Deployment		
6.2.1	Perspective/Strategic plan and Deployment documents are available in the institution		
QlM			
6.2.2	Organizational structure of the institution including governing body, administrative setup, and		
QIM functions of various bodies, service rules, procedures, recruitment, promotional po			
	grievance redressal mechanism		
6.2.4	Effectiveness of various bodies/cells/committees is evident through minutes of meetings and		
QlM	implementation of their resolutions		
6.3	Faculty Empowerment Strategies		
6.3.1	The institution has effective welfare measures for teaching and non-teaching staff		
QlM			
6.3.5	Institution has Performance Appraisal System for teaching and non-teaching staff		
QlM			
6.4	Financial Management and Resource Mobilization		
6.4.1	Institution conducts internal and external financial audits regularly		
QlM			
6.4.3	Institutional strategies for mobilisation of funds and the optimal utilisation of resources		
QlM			
6.5	Internal Quality Assurance System		
6.5.1	Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the		
QlM	quality assurance strategies and processes		
6.5.2	The institution reviews its teaching learning process, structures & methodologies of operations		
QlM	and learning outcomes at periodic intervals through IQAC set up as per norms		
6.5.5	Incremental improvements made during the preceding five years (in case of first cycle)		
QlM			
	Post accreditation quality initiatives (second and subsequent cycles)		

Being a government-run institution, it has to work within the frame of rules and regulations laid down by the government. It functions through different departments, committees and cells as its functioning organs. The institute's perspective plan aims at providing and enhancing the quality of services. Various committees work collaboratively and efficiently and contribute towards the smooth governance and overall functioning of the institution.

Institute has a Employees Credit Cooperative Society (ECCS) managed by the teaching and non teaching staff of the Institute which helps the employees in different ways such as providing short and long term loans.

Regular appraisal of staff performance is carried out in a variety of ways. The accounts and financial transactions adhere to norms and practice. Regular financial audits are carried out. The Internal Quality Assurance System (IQAC) contributes significantly for institutionalizing various processes and strategies including institutional planning, monitoring, documentation and record keeping etc.

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The institution regularly reviews the teaching-learning process, the structures and methodologies of operations. The learning outcomes are also periodically reviewed with various established methods. Regular feedback is collected formally through feedback committee and informally through interactions and observations from different stakeholders.

Criterion?	' - Institutional Values and Best Practices (Key Indicator and Qualitative Metrices(QlM) in		
Criterion?			
7.1	Institutional Values and Social Responsibilities		
7.1.2			
QlM			
	1. Institution shows gender sensitivity in providing facilities such as:		
	1. Safety and Security		
	2. Counselling		
	3. Common Room		
7.1.5	Waste Management steps including:		
QlM	Solid waste management		
	Liquid waste management		
	E-waste management		
7.1.6	Rain water harvesting structures and utilization in the campus		
QlM			
7.1.7	Green Practices		
QlM	Students, staff using		
	a) Bicycles		
	b) Public Transport		
	c) Pedestrian friendly roads		
	Plastic-free campus		
	Paperless office		
	Green landscaping with trees and plants		
7.1.18	Institution organizes national festivals and birth / death anniversaries of the great Indian		
QlM	personalities		
7.1.19	The institution maintains complete transparency in its financial, academic, administrative and		
QlM	auxiliary functions		
7.2	Best Practices Describe at least two institutional best practices (company) A A C Fermi (company)		
7.2.1	Describe at least two institutional best practices (as per NAAC Format)		
QlM	Institutional Distinctiveness		
7.3	Institutional Distinctiveness Describe/Explain the performance of the institution in one area distinctive to its vision priority.		
7.3.1	Describe/Explain the performance of the institution in one area distinctive to its vision, priority		
QlM	and thrust		

The institute ensures enough safety for girl students coming from the different socio-economic and socio-cultural background through the security measures such as CCTV, security agency, monitoring and counseling committees as well as comfort and convenience through the separate common room.

The institute organizes programs and events on gender sensitization, environment and nature conservation. It offers a clean green ambiance with many large well maintained green cover of trees.

It has a large Vermicompost pit to ensure the disposal of a huge amount of green litter in the campus. The campus also has physically challenged (Divyangjan) friendly facilities such as ramps/rails, rest room and parking facility. The institute regularly organizes a variety of programs to promote moral and ethical values, to commemorate important national figures by celebrating the birth anniversaries and to nurture civic sense and social commitment.

Sukhdevji Maharaj of Sawangi Memorial award is given to toppers of six subjects of basic sciences. Organization of Annual Social Gathering, participation of students in different curricular, co-curricular and extra-curricular activities and thus promoting holistic development of the students which being the key motive; some of these activities are followed as best practices of our Institute.

Section III:OVERALL ANALYSISbased on Institutional strengths. Weaknesses, Opportunities & Challenges (SWOC) (up to 500 words)

Strength

As the Institute is running under Nagpur University, it has adopted some best practices and continuously progressing. Sufficient recognized guides for research and excellent number of research scholars getting Ph.D. awarded every year.Library with rich collection of books.

But having limited scope in curriculum design and development.

Also delay in recruitment of teaching and non-teaching staff affects the quality of the teaching and working culture.

Section IV:Recommendations for Quality Enhancement of the Institution

(Please limit to **ten major ones** and use telegraphic language) (It is not necessary to indicate all the ten bullets)

- Need to organise documents sequentially.
- Need to produce five years continuous data.
- Number of best practices should be more.
- ICT rooms should be more.
- IT sections needs to be strengthen.

I have gone through the observations of the Peer Team as mentioned in this report

Signature of the Head of the Institution

Seal of the Institution

Sl.No	Name		Signature with date
1	DR. NAND KUMAR YADAV	Chairperson	
2	DR. M KRISHNAIAH	Member Co-ordinator	
3	DR. KAVITA SHAH	Member	
4	Dr. Darikhan Kamble	NAAC Co - ordinator	

Place

Date