



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

NATIONAL BRAIN RESEARCH CENTRE

NH -8, NAINWAL ROAD, MANESAR HR-122052

122052

www.nbrc.ac.in

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BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

National Brain Research Centre (NBRC) is a specialized deemed-to-be University dedicated to teaching and research in the frontier areas of neuroscience. Scientists and students of NBRC come from diverse academic backgrounds and use multidisciplinary approaches to understand the complex processes that form the basis of brain functions. Spread over a sprawling campus in the foothills of the Aravalli range in Manesar, Haryana, NBRC is an autonomous institute under the Department of Biotechnology, Ministry of Science and Technology, Government of India.

Vision

The vision of NBRC is to develop into a world-class organisation for brain research and to create a vibrant neuroscience community by catalyzing the overall growth of this discipline in the country. The expected benefit would be the generation of skilled manpower in this frontier area of science who would help India achieve an international leadership. This initiative would also help Indian neuroscientists to participate in global research efforts as equal partners. The knowledge base generated from these efforts would help in the development of diagnostic tools and therapeutic strategies for treatment of brain-related disorders. A unique role for NBRC is to act as a node with linkages to other centres carrying out neuroscience research in the country, acting in effect as the “hub of the wheel” rather than the wheel itself.

Prof. Prakash Narayan Tandon, a neurosurgeon of international repute and a neuroscientist at heart, is the visionary scientist pivotal for the establishment of National Brain Research Centre. Prof. Tandon is the chairman of the NBRC society and continues to be actively associated with neuroscience research.

Mission

The mandate of NBRC is to:

- Pursue leading-edge research to understand brain function in health and disease
- Nurture the younger generation to carry out interdisciplinary research in the field of neuroscience
- Promote neuroscience in India through networking among institutions across the country

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

NBRC is an institute of excellence and apex neuroscience institute in India. The vibrant scientific environment places NBRC in a pivotal position not only for training the future generation of neuroscientists, but also perform world class neuroscience research. Equipped with state-of-the-art neuroimaging facilities including 3T MRI, MEG, EEG, 2-photon microscope and various light microscopes with live brain imaging capabilities and a world class non-human primate and animal facility, all under one roof, puts NBRC at par with other

neuroscience research institutes of international standards. NBRC, with its deemed to be University status engages highly talented and well-trained faculty and offers very specialized and comprehensive curriculum for its Master's and doctoral programs that are geared to ensure generation of skilled manpower necessary to meet the scientific challenges of the country.

NBRC is proud of its state-of-the-art infrastructure that fosters cutting-edge neuroscience research in the country. The campus hosts the Centre of Excellence in Epilepsy housing the country's first magnetoencephalography (MEG) system. The National Neuroimaging facility at NBRC includes a 3T MRI and high density EEG systems. The institute also boasts of its latest two-photon microscopy facility.

NBRC is open for collaborations and avails the following facilities for use by external researchers (academic and industry) at nominal charges:

- Magnetoencephalography (MEG)
- Fluorescent microscope
- Laser Capture Microdissection (LCM) & Microdissectioning
- Magnetic Resonance Imaging (MRI)
- Two-photon microscope

The greatest strength of NBRC lies in its diversity. NBRC, therefore, attracts highly talented students from all disciplines across the country who are passionate about neuroscience and creates a scientifically healthy and research-friendly environment for them. Over a period of its existence, NBRC has built a strong neuroscience community in India by engaging its alumni who have been placed in several independent scientific positions in India and abroad (http://www.nbrc.ac.in/newweb/success_stories).

The faculty of NBRC have high level of expertise in diverse fields of neuroscience and are well-qualified and motivated to mentor students. They have been maintaining an excellent record of research publications in high-impact international peer-reviewed journals and engage in several national and international collaborations.

Institutional Weakness

The major weakness of NBRC is probably also its strength, which is the limited annual intake of students. Although this generates an excellent student-teacher ratio, one could also consider it as a weakness. Only the best minds in the country succeed in procuring admission to the institute through a highly competitive selection process. We focus on the quality of students and not the quantity, hence the number of students admitted every year is small and variable.

Another major setback is the remote location of the institute at the outskirts of Gurgaon city, which although offers excellent ambience for research, dissuades students (and parents) to pursue courses with us. It also limits accessibility to patients from tertiary hospitals in New Delhi. This has, to some extent, impacted our research collaborations with clinicians, nevertheless, we have learnt to overcome it by offering transport facilities for patients and have successfully established collaborative projects with AIIMS, New Delhi. This is also one of the reasons for many vacant scientific, technical and administrative posts that remain unoccupied in the institute.

Institutional Opportunity

Being an institute with a specialized focus on neuroscience, NBRC provides numerous opportunities for multi-disciplinary collaborations as is evident from the success of our dementia and the mental health flagship projects. This also exposes the students to neuroscience research at all levels from molecular to clinical neuroscience. Since the course curriculum is extensive, covering all aspects of neuroscience research, the students are well-equipped to pursue higher studies in any field of their choice, for example, students from molecular biology background can opt to pursue computational/cognitive neuroscience and vice versa.

NBRC, by all means, is capable of carrying out cutting edge fundamental and translational research to understand how the human brain works in healthy and diseased conditions. The institute is constantly engaged with various national and international funding agencies to attract research funding to address the critical mental health problems in India. We plan to tap into this opportunity for additional funding to set up a multi-institutional research program to tackle complex questions on mental health that are beyond the ability of an individual laboratory.

Institutional Challenge

There is a dearth of graduate level training programs in neuroscience all over the world. Our master's students are in great demand in countries of European Union, USA and Canada. We are unable to find well trained students for inducting them into our PhD program in neuroscience and hence our numbers are currently low. This leads to suboptimal utilization of resources allocated to us.

Due to our location away from any tertiary hospital, it has been a logistical challenge to get patients to the institute for participation in research protocols. We are yet to find more efficient solutions to this problem.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

NBRC's philosophy is to achieve academic excellence with focus on Innovation, Research and Internationalisation. As part of continuous improvement in providing quality education, NBRC follows the pedagogy for holistic growth and leverages the talents and capabilities of students to meet the needs of contemporary research environment.

The course is carefully designed to be a combination of blended learning, classroom contact sessions, Course works, practical exams, Lab Sessions, Research Projects and workshops/seminars/ assignments having research relevance. Under the digital integration initiative of the institute, the teaching-learning process focuses on use of ICT making the learning process student/ learner centric. Use of ICT approach caters to the diverse needs of students allowing them to practice and engage in Choice, Collaboration, Communication, Critical thinking,

Creativity and Change.

The curriculum focuses on enhancing the skills and capabilities of the students to pursue neuroscience research. The curriculum is reviewed every year for which feedback is taken from various stakeholders.

Teaching-learning and Evaluation

NBRC has been active in assessing the knowledge gaps and learning requirements of its students. Both slow and advanced learners are helped through practice assignments, extra-reading materials, bridge courses, regular quizzes and tests. NBRC conducts orientation programmes for the new batches to familiarize them with the centre, its activities, facilities, and regulations. Student participation in journal clubs helps in improving their communication skills. Regular guest lectures and invited talks by internationally renowned scientists and academicians add up to their exposure to world-class research. Visits to hospitals, lab sessions and lab training offer a progressive teaching and learning experience.

The focus of NBRC has been on student centric learning and research. The methods used include class and collaborative learning, peer tutoring, practical exams and coursework. The students gain skills in critical thinking, communication, team cohesiveness and learning. The Examination Regulations are very rigorous and schedules are strictly maintained. The pedagogy adopted is in sync with the learning outcomes to be achieved.

Research, Innovations and Extension

The quest for search of new knowledge is made vibrant by promoting basic and interdisciplinary research activities with focus on emerging societal needs and innovation. A well-defined research policy of NBRC ensures smooth conduct of research activities. For this, the institute creates an enabling environment to foster interdisciplinary research culture while providing for required research infrastructure and support. Our research endeavor is well supported by grants and facilitates dissemination of information related to schemes, awards, fellowships etc. NBRC also promotes faculty engaged in top publications, authoring books and innovative research leading to patents. The research and innovation efforts have yielded an extensive network of national and international collaborations, leading to high quality publications and research patents.

Infrastructure and Learning Resources

Being a centre of excellence for research activities, the infrastructure of NBRC is a mix of the old and the new. NBRC has taken great care in ensuring that the existing natural beauty is incorporated into its landscaping for the campus and its buildings. There are several common conference halls of different sizes. NBRC has been constantly upgrading the infrastructure in the last several years to keep pace with increasing demand and additional requirements. The result is a few state-of-the-art auditoria. While the classrooms are fully equipped with digital projectors, the research and computer labs are well equipped with most advanced generation equipment and technology comparable with the top universities in the country.

NBRC has invested substantially over the last few years to improve the infrastructure on classrooms, laboratories and library with innovative books and journals. All buildings and floors also provide safe drinking water facility through installation of RO plant in the campus and in the hostels and staff quarters. The quality of water as refined by the plant is continuously monitored. Uninterrupted electricity supply is ensured in the

campus with the help of Gensets. Transport facility is provided with the help of Buses, Student Sumos (from internal resources as well as hired fleet of buses) and Tata Sumo supported by few small cars on standby. NBRC has invested hugely in maintaining the green landscape with gardens and lush green lawns to beautify its campus, besides a football playground for outdoor games, athletics and public gatherings. NBRC, being a residential campus, has the provision for necessary housing units and hostels for its residents i.e. students, faculty, wardens and staff with appropriate vehicle parking space.

Student Support and Progression

Student Support and Progression is an integral part of the quest for 'Academic Excellence' at NBRC. Student Welfare is one of the most important areas in which NBRC has invested a lot of thought and planning. The Institute has adopted several strategic measures towards holistic development of students. The Institute promotes value-based education for inculcating social responsibility and good citizenship amongst its student community. The state-of-the-art infrastructure promotes active participation of the students in social, cultural and recreational activities which help develop various skills in students to foster holistic personal and professional development.

Governance, Leadership and Management

NBRC has a very effective and participatory management which is in conformity with its vision and mission. The core values that uphold academic innovation, national pride, scientific ethics and environmental sustainability are all reflected here. NBRC leadership ensures involvement of each stakeholder, effective decision making and a unified system consistent with its Acts, Statutes and Ordinances. Its strategic plan is in perfect harmony with the set objectives, broad goals and the mission and vision documents. A Grievance and Disciplinary mechanism is in order to redress any complaints arising during the course of employment. Any act of 'Misconduct' is deliberated upon by the relevant committee to recommend appropriate action. We are effectively functioning in the areas of planning, administration, finance and examination. All such committees maintain records through Minutes of Meeting and ensure their effective implementation. NBRC maintains very high working and living standards with world class infrastructural facilities and welfare measures for students and on-campus residents. It also provides financial, logistical and motivational support for every aspect of professional development. The Faculty is encouraged to attend national/international FDPs, conferences, seminars for their personal and professional growth. Every Teaching/Non-Teaching employee is assessed for his/her performance through Performance Based Appraisal System (PBAS) based on the guidelines as stipulated by authorities. Regular and stringent financial audit is performed every year to maintain accounts along with external audits for an impeccable and transparent system. NBRC receives grants from time to time from governmental agencies which are optimally utilized for targeted activities and for continual improvements matched with the global best practices. NBRC has established an Internal Quality Assurance Cell (IQAC) to implement and improve quality standards and strategies through a combination of internal and external evaluation. IQAC will undertake periodical audits to improve processes related to teaching-learning, structures, and methodologies. Recommendations and feedback by IQAC will be analyzed and implemented for improvements. NBRC faculty have received many accolades and awards which indicate highest global standards in research, industry integration and academics.

Institutional Values and Best Practices

NBRC is committed to adopt best practices blended with educational value system to achieve goal of excellence in providing 21st century quality education to meet national and global needs. NBRC attaches high priority to core areas of human endeavour including environmental sustainability, sensitivities towards gender and differently-abled, community development, promotion of human values and national integration. It shows transparency in terms of finances and academic processes with defined code of conduct for Institute functionaries. NBRC is well equipped with state-of-the-art infrastructure, well trained and sensitive human interface, courses and curricula, easily accessible grievance redressal mechanism, and well-structured guidance and counseling services. Safety and security constitute strength of the Institute to make education inclusive and fair in every way. Imparting value education and professional ethics are very meticulously integrated into curricula through appropriate pedagogy.

NAAC

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the University	
Name	NATIONAL BRAIN RESEARCH CENTRE
Address	NH -8, NAINWAL ROAD, MANESAR HR-122052
City	Manesar
State	Haryana
Pin	122052
Website	www.nbrc.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Director(in-charge)	Pravat K Mandal	0124-2845206	9910318922	0124-2845336	director.nbrc@gov.in
IQAC / CIQA coordinator	Pankaj Seth	0124-2845345	9899592444	-	pseth@nbrc.ac.in

Nature of University	
Nature of University	Deemed University

Type of University	
Type of University	Unitary

Establishment Details	
Establishment Date of the University	14-11-1997
Status Prior to Establishment, If applicable	

Recognition Details		
Date of Recognition as a University by UGC or Any Other National Agency :		
Under Section	Date	View Document
2f of UGC		
12B of UGC		

University with Potential for Excellence	
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	No

Location, Area and Activity of Campus							
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	Programmes Offered	Date of Establishment	Date of Recognition by UGC/MHRD
Main campus	NH -8, NAINWAL ROAD, MANESAR HR-122052	Semi-urban	38.3	26881.7	M.Sc. (Neuroscience) and Ph.D.		

2.2 ACADEMIC INFORMATION

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	0
Affiliated Colleges	0
Colleges Under 2(f)	0
Colleges Under 2(f) and 12B	0
NAAC Accredited Colleges	0
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	0
Colleges with Postgraduate Departments	0
Colleges with Research Departments	0
University Recognized Research Institutes/Centers	0

Is the University Offering any Programmes Recognised by any Statutory Regulatory Authority (SRA)	: No
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Details Of Teaching & Non-Teaching Staff Of University

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned	8				9				7			
Recruited	2	0	0	2	8	0	0	8	3	3	0	6
Yet to Recruit	6				1				1			
On Contract	0	0	0	0	0	0	0	0	0	0	0	0

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned				21
Recruited	13	2	0	15
Yet to Recruit				6
On Contract	1	0	0	1

Technical Staff				
	Male	Female	Others	Total
Sanctioned				38
Recruited	25	2	0	27
Yet to Recruit				11
On Contract	0	0	0	0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	2	0	0	8	0	0	3	3	0	16
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	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

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	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

Distinguished Academicians Appointed As

	Male	Female	Others	Total
Emeritus Professor	0	0	0	0
Adjunct Professor	0	0	0	0
Visiting Professor	8	3	0	11

Chairs Instituted by the University

Sl.No	Name of the Department	Name of the Chair	Name of the Sponsor Organisation/Agency
1	NBRC	DBT Biotechnology Chair	DBT

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

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	0	1	0	0	1
	Female	0	0	0	0	0
	Others	0	0	0	0	0
PG	Male	0	2	0	0	2
	Female	0	6	0	0	6
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	Yes
Total Number of Integrated Programme	1

Integrated Programme	From the State where university is located	From other States of India	NRI students	Foreign Students	Total
Male	0	2	0	0	2
Female	0	6	0	0	6
Others	0	0	0	0	0

Details of UGC Human Resource Development Centre, If applicable

Year of Establishment	Nil
Number of UGC Orientation Programmes	0
Number of UGC Refresher Course	0
Number of University's own Programmes	0
Total Number of Programmes Conducted (last five years)	0

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
National Brain Research Centre	View Document

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Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2019-20	2018-19	2017-18	2016-17	2015-16
2	2	2	2	2
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 1

2 Students

2.1

Number of students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
19	27	22	16	12
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

Number of outgoing / final year students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
11	13	13	7	9
File Description		Document		
Institutional data in prescribed format		View Document		

2.3

Number of students appeared in the University examination year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
23	15	13	11	11
File Description		Document		
Institutional data in prescribed format		View Document		

2.4

Number of revaluation applications year-wise during the last 5 years

2019-20	2018-19	2017-18	2016-17	2015-16
1	1	1	1	1

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
2	2	2	2	2
File Description		Document		
Institutional data in prescribed format		View Document		

3.2

Number of full time teachers year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
15	15	15	16	16
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
24	24	24	24	24
File Description		Document		
Institutional data in prescribed format		View Document		

4 Institution**4.1****Number of eligible applications received for admissions to all the programs year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
974	1134	568	730	927
File Description		Document		
Institutional data in prescribed format		View Document		

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

2019-20	2018-19	2017-18	2016-17	2015-16
6	5	5	4	4
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 6****4.4****Total number of computers in the campus for academic purpose****Response: 119**

4.5

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
1998.99	2064.82	2046.68	1825.18	2445.49

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4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

National Brain Research Centre (NBRC) aims to undertake research of high caliber in basic and clinical neurosciences related to diseases and disorders of nervous system, to develop the Centre as the National Apex Centre for neuroscience research and promote neuroscience research at different centers/ institutions/ universities in the country, and to provide consulting services to other institutions, agencies and industries.

NBRC is to act as a nodal agency to promote, encourage and augment effective linkages, alliances and affiliations between the Centre and national and international scientific and research institutions, bodies, agencies, and other organizations working in the field of brain and neurosciences research, thus acting in effect as the "hub of the wheel" rather than the wheel itself.

The initial syllabus was designed after a well-thought out process of consultations with the experts in the country to make it at par with syllabi of universities of international repute. NBRC takes feedback from students on coursework. Based on the feedback and recent developments in the field, NBRC carries out periodical review of the course content. Changes are incorporated after thorough consultations and after taking approval from the Board of Studies and Academic Counsel of the Centre.

During the period of these courses, the students are well-trained in different techniques used in general molecular neurobiology, systems neurobiology, Computational Neuroscience, bioinformatics and Neuroimaging. They learn to pose intelligent research questions and develop approaches to address them. They are trained to use innovative ways to find answers to important research questions. Research is an integral part of these courses. Thus, by the time students complete their degrees they are well-trained for employment in research institutions, universities and private sector where they can use innovative approaches towards research, teaching and drug development.

Keeping in view the mandate and the vision of NBRC it has emerged as one of the first Institutes in the country to develop an integrated multidisciplinary teaching programme in Neuroscience. The Institute offers MSc and Ph.D. Programme in Neuroscience to develop trained manpower having a broad overview of different aspects of Neuroscience. The Ph.D. and Integrated Ph.D. programmes conducted at NBRC are unique and inter-disciplinary in nature. As the courses are highly specialized, there has not been a necessity for a major change in the curriculum. However, from time to time the suggestions of

members of Board of Studies and Academic Council are taken, and after due deliberations the coursework content is modified as per the need.

A NBRC scientist has been involved in developing curriculum for Master in Neuroscience programme sponsored/coordinated by Department of Biotechnology, Ministry of Science of Technology. This curriculum is used in different Centers across the country. This curriculum is reviewed by DBT from time to time, and NBRC participates in deliberations.

File Description	Document
Upload Additional information	View Document

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 2

1.1.2.2 Number of all Programmes offered by the institution during the last five years.

Response: 2

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Details of Programme syllabus revision in last 5 years	View Document
Any additional information	View Document

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 100

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
2	2	2	2	2

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	View Document
Institutional data in prescribed format	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 0

1.2.1.1 How many new courses were introduced within the last five years.

1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Response: 2

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 50

1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 1

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

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

Response:

Inculcating a sound value system among students is one of the primary goal of scientific and academic vision of NBRC. Since, the educational system at NBRC is fully residential with all facilities including library, liberty to work round-the-clock in laboratories, the students develop a sound value-based work culture. Further, ethics classes are conducted in each semester to inculcate good human values necessary for the practice of science. During the course-work year, every first-year student has a faculty mentor. Time to time NBRC conducts gender related programs to sensitize all concerned about these issues during informal meetings/get-togethers. On the side of national/international conferences, workshops and meetings NBRC has time to time also organized courses on imparting skills to students for scientific and manuscript writing, grant and proposal submission.

File Description	Document
Any additional information	View Document

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 0

1.3.2.1 How many new value-added courses are added within the last five years.

File Description	Document
Institutional data in prescribed format	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 0

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for

the latest completed academic year).

Response: 100

1.3.4.1 Number of students undertaking field projects or research projects or internships.

Response: 19

File Description	Document
List of Programmes and number of students undertaking field projects research projects/ / internships (Data Template)	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: B. Any 3 of the above

File Description	Document
URL for stakeholder feedback report	View Document
Institutional data in prescribed format	View Document
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
URL for feedback report	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Demand Ratio (Average of last five years)

Response: 48.39

2.1.1.1 Number of seats available year wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
19	27	22	16	12

File Description	Document
Demand Ratio (Average of Last five years) based on Data Template upload the document	View Document
• Any additional information	View Document

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years (Excluding Supernumerary Seats)

Response: 81.67

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
5	5	5	4	1

File Description	Document
Average percentage of seats filled against seats reserved (Data Template)	View Document
Any additional information	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

NBRC is a unique institution which offer interdisciplinary training in Neurosciences that includes Molecular, Systems, Computational, Cognitive and Clinical Neuroscience. MSc students get exposed to laboratory techniques in the most cutting-edge research areas imaginable in the world in modern Neuroscience during the coursework as well as during the their 1-year dissertation. In addition, the students from diverse backgrounds, from Biological to Physical Sciences, attend specially designed coursework to equip themselves for conducting specialized research to address some of the most fundamental problems in Neuroscience and to alleviate the health burdens in India of neurological disorders and mental health. The students are exposed to unique animal handling, laboratory ethics, and several seminars/workshops/conferences where leading experts of the world deliver pedagogical lectures and provide hands-on training on advanced techniques. The coursework and these kind of experiential learning programs creates an atmosphere of holistic learning and education where both slow and fast learners always find things stimulating and engaging to foster their curious minds and their budding careers in Neuroscience research. The excellent mentor to mentee ratio rekindles the glorious ancient traditions of Indian culture of “Gurukul” merged with the most modern scientific temperament.

NBRC has smart classrooms equipped with state-of-the-art multimedia, Internet based communication tools to encourage a holistic learning experience.

2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 1:1

File Description	Document
Any additional information	View Document

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****Response:**

Course curriculum designed for M.Sc. and Ph.D. programme at NBRC offers an unique platform for all students coming from diverse background ranging from Biological Sciences to Physical Sciences. Faculty responsible for each course have extensive expertise on teaching methodologies that is inclusive for all students irrespective of their strength and weakness in any discipline and effective learning of courses are judged at multiple levels to ensure that students enrolled in respective programme are equipped to take challenges in Neuroscience field. The teaching programme includes experimental learning through interactive laboratory practicals for M.Sc. students and laboratory rotation in three chosen areas, namely Molecular & Cellular, System and Computational & Cognitive Neuroscience for PhD students. This hands-on training offers an unique opportunity to learn fundamental textbook knowledge through laboratory experimentation. Our teaching programme also emphasizes effective teaching through informal yet intense question-answer sessions in each class to bring all students almost to similar levels essential for advanced

level courses. Our first semester courses are designed to teach fundamental concepts in Neuroscience that are gradually tuned to learn more advanced level Neuroscience courses, such as computation & cognitive neuroscience and clinical neuroscience in the second semester. Our course work ensures participative learning through class seminars, group discussions and attending institutional seminar series. The course work has incorporated a scientific strategy to ensure problem solving attitudes among students enrolled in both the Masters and Doctoral programmes. Towards this goal, each course-instructor takes class tests by asking thought-provoking questions and also internal as well as external assessments invoke problem-solving experiences by engaging each students to solve research problem-oriented questions. The computational neuroscience course tests quantitative abilities by giving students problem-solving questions related to writing conceptual algorithms. Here, students write computer codes based on advanced concepts in MATLAB/ Python to simulate dynamic properties of neurons (nerve cells) and understand the mechanistic systems level properties of the nervous system reported in seminal research articles in the field.

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

For effective teaching and learning processes, the entire teaching program at NBRC is conducted using ICT enabled tools, multimedia, animations and several online resources. The faculty use digital platforms, 3D animations for explaining hard to understand complex structure of human brain and its anatomical structures, cellular and molecular aspects and neuroimaging topics. Students have access to online software like MATLAB for high end computing. Neuroscience teaching also involves data intensive MRI images, MEG and EEG data that require complex computing on robust computing machines. NBRC has invested in ICT resources and multi-usage license of most of the neuroscience related software for the purpose so they can simultaneously login into several computers available to them for their practical, assignments and ICT based learning.

Our teaching and assignments process is completely paperless. Our recruitment process for support staff such as research assistants is mostly through online process.

The entire teaching feedback process is paperless. Student can fill and upload their feedback on the portal that is password protected and can be accessed only by authorized persons.

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 1:1**2.3.3.1 Number of mentors**

Response: 16

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document

2.4 Teacher Profile and Quality**2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years****Response: 64.17**

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D’Lit. year-wise during the last five years**Response: 100****2.4.2.1 Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
15	15	15	16	16

File Description	Document
List of number of full time teachers with Ph D/D M/M Ch/D N B Superspeciality/DSc/D Lit and number of full time teachers for 5 years	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 14.93

2.4.3.1 Total experience of full-time teachers

Response: 224

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	View Document
Any additional information	View Document

2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

Response: 168.83

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognised bodies year wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
4	9	4	5	4

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 24.6

2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
32	21	26	28	16

File Description	Document
List of Programmes and date of last semester and date of declaration of results	View Document

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0

2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

2.5.3 IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

Response:

- **Examination procedures** - The curriculum taught at NBRC is geared towards effecting learning of fundamental concepts of neurosciences, enhance thought process to identify critical questions in the field and conceptualize research design to address these challenges. The students are tested to evaluate their understanding of basic concepts by answering short-answer and multi-choice question. The examination process tests students' ability to conceptualize the research problem by answering descriptive problem-solving questions. These problem-solving questions can test strength of students' ability to synthesize new experimental design that could potentially overcome previous challenges to approach a specific question. Typically, the examination process is divided into two major part – external and internal assessments. The external assessment paper is setup by leading area expert outside NBRC who is well versed with our curriculum. This primarily eliminates a miniscule possibility of teaching bias and ensures students to approach any national as well as international tests. Students not successful to qualify the threshold point (scored less than 50%), need to appear for supplementary examination after significant preparation of the same course. Students are often counseled for their improvement in learning and problem-solving attitude through one-on-one interaction with respective faculty. The laboratory research experiences are also evaluated by laboratory viva to evaluate the extent of research-based learning. Finally, doctoral students are tested for overall learning and suitability of joining a research programme through a comprehensive viva examination that is conducted in presence of leading experts in neuroscience research outside NBRC.
- **Processes integrating IT** - The class room at NBRC is equipped with overhead projectors and internet connections to integrate the modern methods of teaching with traditional chalk board teaching. The computational courses are taught and evaluated in a class room with work stations to make sure the students understand basic principle of computing.
- **Continuous internal assessment** The students are continuously assessed through multiple internal

tests so that any lacune in their understanding can be detected early. These internal assessment answer scripts are discussed with each student to apprehend their shortcomings. Another unique assessment adopted by our curriculum involves class seminars to prepare our students how to communicate science with the community. This is particularly very important as our students coming from various states of the country and different socio-economic levels. The class seminars effectively teach them how to precisely communicate the important question in any chosen area, how to address the research problem, how to interpret the research outcome and how to communicate the research outcomes to broader community.

2.5.4 Status of automation of Examination division along with approved Examination Manual

Response: Only manual methodology

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents

Response:

One of the three key mandates of NBRC is development of a skilled human resource base in neuroscience for the country. Students who are enrolled in Masters and Doctoral programmes of NBRC develop a comprehensive understanding of concepts related to fundamental as well as translational neuroscience. Moreover, these two teaching programmes hone the research skills of budding scientist and motivate them to take up crucial challenges in neuroscience research either fundamental in nature or health burden of societal impact. All of our Masters students successfully secure admission for Ph.D. programme in Indian and international institution with commendable reputation. Students with a doctoral degree from NBRC are in high demand world-wide. Our doctoral students typically go to international institute of repute for Postdoctoral Research to enable themselves for an independent position. Several of our doctoral students have already secured faculty positions in various institutes in India. NBRC provides these programme specific outcomes in the institutional websites and update periodically. The course outcomes, such students' evaluation of each semester examination and comprehensive viva are communicated to students concerned and teachers.

Some of the generic and programme specific outcomes are:

1. MSc degree in Neuroscience

2. PhD degree in neuroscience
3. Intellectual development with interdisciplinary understanding
4. In depth knowledge of the subject
5. Competence for research and development with innovation
6. Job skills with collaborative attitude
7. Ethical behavior towards research, teaching and society
8. Ability to work independently as well as part of a team
9. management of time towards achieving the goal
10. Cordial relationship with colleagues

2.6.2 Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

Response:

The Programme specific outcomes, overall Programme outcome and course outcome are periodically discussed in duly appointed course-work co-ordination committees. NBRC takes necessary feedback from all course-work students for each courses. Additionally, the Director meets with students to ask their opinion. These inputs are used to strengthen the programme and make appropriate changes as and when required. These feedbacks are discussed in the faculty meetings and appropriate suggestions from students are addressed by modifying the curriculum, time for teaching each course, adding or deleting topics as deemed fit. These suggestions are then discussed in the Board of Studies and Academic Council for approval and implementation.

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 100

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 15

2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Response: 15

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process	
Response: 3.43	
File Description	Document
Upload database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1 The institution Research facilities are frequently updated and there is well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

Yes. We have a policy regarding *promotion of research* and the document is enclosed herewith from the GC/SAC committee minutes.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 154

3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

2019-20	2018-19	2017-18	2016-17	2015-16
140	140	150	160	180

File Description	Document
Minutes of the relevant bodies of the University	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

Response: 70.13

3.1.3.1 The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
14	10	14	8	8

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the award letters of the teachers	View Document

3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.**Response:** 113**3.1.4.1 The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
24	29	28	18	14

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.5 Institution has the following facilities to support research

1. Central Instrumentation Centre
2. Animal House/Green House
3. Museum
4. Media laboratory/Studios
5. Business Lab
6. Research/Statistical Databases
7. Mootcourt
8. Theatre
9. Art Gallery

Response: A. 4 or more of the above

File Description	Document
Upload the list of facilities provided by the university and their year of establishment	View Document
Paste link of videos and geotagged photographs	View Document

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies (Data for the latest completed academic year)

Response: 100

3.1.6.1 The Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognitions by national and international agencies.

Response: 1

File Description	Document
Institutional data in prescribed format	View Document

3.2 Resource Mobilization for Research

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

Response: 128.22

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).

2019-20	2018-19	2017-18	2016-17	2015-16
11.20	15.20	21.40	80.42	0

File Description	Document
Institutional data in prescribed format	View Document

3.2.2 Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).

Response: 7650.37

3.2.2.1 Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).

2019-20	2018-19	2017-18	2016-17	2015-16
1039.58	2883.60	3070.64	333	323.55

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by government	View Document

3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years**Response:** 12.14**3.2.3.1 Number of research projects funded by government and non-government agencies during the last five years.****Response:** 34**3.2.3.2 Number of full time teachers worked in the institution year-wise during the last five years..****Response:** 14

File Description	Document
Supporting document from Funding Agency	View Document
Institutional data in prescribed format	View Document

3.3 Innovation Ecosystem**3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge.****Response:**

NBRC plans to apply for grants under the Atal Innovation Mission an incubation centre and has already started the process to do so. It is already a partner in the Incubation Centre which is under the aegis of the National Capital Region (NCR) Biotech Cluster initiated by the Dept. of Biotechnology, which includes other national institutes including THSTI (Translational Health Science and Technology Institute, Faridabad), RCB (Regional Center for Biotechnology, Faridabad), NII (National Institute for Immunology, New Delhi), NIPGR (National Institute for Plant Genome Research, New Delhi) and ICGEB (International

Centre For Genetic Engineering And Biotechnology, New Delhi). The institute provides an ideal environment for start-ups in the biomedical field with the availability of space as well as laboratories with state-of-the-art facilities to perform research including molecular biology, systems and computational neuroscience. The National Neuroimaging Facility and MEG facilities already established on campus also provide all the infrastructure needed for brain imaging. The institute also houses several high-end microscopes and a well-equipped animal house which would be necessary for companies interested in biomedical research. In addition to these facilities, NBRC's computer centre provides a campus-wide LAN integrated with a Wi-Fi network and services related to the internet. Further, NBRC hosts the DBT e-Library Consortium (DeLCON) with a membership of 34 institutes. A total of 1171 Journals and a Database (SCOPUS) available to DeLCON consortium members through the DeLCON portal. Besides hosting and managing different servers, video-conferencing facilities are available on campus. As mentioned above, NBRC is a part of the National Capital Region (NCR) Biotech Cluster initiated by the Dept. of Biotechnology. This multi-institutional cluster has been established to ensure that scientists at each institute have access to common infrastructure as well as to increase collaborations between scientific institutions. Additionally, NBRC has signed a memorandum of understanding with the Indian Institute of Technology, Delhi to facilitate collaborations between the two institutes. NBRC also has a policy for intellectual property rights (IPR) and commercialization of discoveries and products, which encourages the faculty to create start-ups.

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 16

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
3	2	5	2	4

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

3.3.3 Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.

Response: 26

3.3.3.1 Total number of awards / recognitions received for research / innovations won by institution / teachers / research scholars / students year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
4	9	4	5	4

File Description	Document
Institutional data in prescribed format	View Document
e- copies of award letters	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: A. All of the above

File Description	Document
Code of ethics for Research document, Research Advisory committee and ethics committee constitution and list of members on these committees, software used for Plagiarism check, link to Website	View Document
Any additional information	View Document

3.4.2 The institution provides incentives to teachers who receive state, national and international recognitions/awards 1. Commendation and monetary incentive at a University function 2. Commendation and medal at a University function 3. Certificate of honor 4. Announcement in the Newsletter / website

Response: D. 1 of the above

File Description	Document
Institutional data in prescribed format	View Document
e- copies of the letters of awards	View Document

3.4.3 Number of Patents published / awarded during the last five years.

Response: 5

3.4.3.1 Total number of Patents published / awarded year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
1	0	0	2	2

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.4 Number of Ph.D's awarded per teacher during the last five years.

Response: 2.21

3.4.4.1 How many Ph.D's are awarded within last five years.

Response: 31

3.4.4.2 Number of teachers recognized as guides during the last five years

Response: 14

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
URL to the research page on HEI web site	View Document

3.4.5 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 15.32

3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
38	43	51	54	50

File Description	Document
Institutional data in prescribed format	View Document

3.4.6 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:** 1.43**3.4.6.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
2	2	3	10	5

File Description**Document**

Institutional data in prescribed format

[View Document](#)**3.4.7 E-content is developed by teachers :**

- 1.For e-PG-Pathshala
- 2.For CEC (Under Graduate)
- 3.For SWAYAM
- 4.For other MOOCs platform
- 5.For NPTEL/NMEICT/any other Government Initiatives
- 6.For Institutional LMS

Response: E. None of the above**File Description****Document**

Institutional data in prescribed format

[View Document](#)**3.4.8 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed****Response:** 18.8**File Description****Document**

Bibliometrics of the publications during the last five years

[View Document](#)

Any additional information

[View Document](#)**3.4.9 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution**

Response: 20

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	View Document

3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy.

Response:

We have a policy on consultancy for faculty members which was discussed during the GC meeting. The minutes of the relevant portion of GC are enclosed herewith.

File Description	Document
Upload minutes of the Governing Council/ Syndicate/Board of Management related to consultancy policy	View Document

3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 0

3.5.2.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising

students to social issues and holistic development during the last five years.

Response:

NBRC has always believed in inculcating an interest in science and is mandated to increase awareness of the brain in health and disease amongst the general public including the school-going children. A number of NBRC faculty have given talks to popularize science with a special focus on the brain in and around Manesar, Haryana where NBRC is situated. From the time of its inception, NBRC has encouraged school and college students from across the country to visit the campus. Groups of students and their teachers are accompanied by NBRC students and are taken on a tour of the different facilities and labs. In each lab, students and other personnel explain the important scientific questions that are being explored at NBRC. On the National Science Day held yearly on the 28th of February, faculty, students, post-docs and project employees of NBRC present talks on the basics of neuroscience to students of schools/colleges. An important part of NBRC's Foundation Day celebrations (December 16th) is to invite students from schools from Gurgaon/ Manesar to attend a scientific poster presentation, demonstrations in the various laboratories and facilities, compete in a scientific quiz at NBRC as well as attend a lecture on neuroscience presented by one of the faculty. Further, NBRC scientists interact with the students to explain how science is performed. While many of these events are conducted by faculty, there is enthusiastic participation by NBRC students and project assistants as well. Additionally, NBRC sponsors the Brain Awareness Week in different institutions across the country to educate the general public as well as school and college students about normal brain functions and the consequences of the healthy brain as well as brain diseases through talks, poster sessions and demonstrations

(<http://www.nbrc.ac.in/newweb/brain-awareness-programme>). NBRC also participates in the India International Science Festival. An open day for school students was organized as described above on the 20th of September at the Manesar campus. Further, a group of students and faculty from NBRC participate in the main event, which is organized by Ministry of Science and Technology, Ministry of Earth Sciences in association with Vijnana Bharati.. Posters illustrating the research carried out at NBRC drew more than a thousand visitors and generated much interest about brain functions and neuroscience.

The Sarv Shiksha Abhiyaan (SSA) is Government of India's flagship programme for achievement of Universalization of Elementary Education (UEE) in a time bound manner. Another example of NBRC's outreach programs which is important for the community at large is a screening tool (DALY) developed at NBRC, which has been used successfully to identify school going children at an early stage (6 – 11 years) who have learning disabilities such as problems with reading, writing, spelling and mathematical skills. Once these children have been identified, interventions can be planned early to ensure that they overcome their disabilities.

3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the last five years

Response: 0

3.6.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

3.6.3 Number of extension and outreach programs conducted by the institution including those through NSS/NCC/Red cross/YRC during the last five years (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs).

Response: 12

3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc. (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs) year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
2	3	2	4	1

File Description	Document
Reports of the event organized	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 720.71

3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
108	143	108	85	178

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

Response: 49.8

3.7.1.1 Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
52	28	50	53	66

File Description	Document
Institutional data in prescribed format	View Document

3.7.2 Number of functional MoUs 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: 4

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

2019-20	2018-19	2017-18	2016-17	2015-16
1	0	1	1	1

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the MoUs with institution/ industry	View Document
Any additional information	View Document

NBAAC

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

The university is spread over an area of 38.78 acres with a built-up area of 26419 square meters. The main buildings and installations include IB-1, IB-3, fMRI building, MEG building, animal house, an incinerator for waste disposal, a power house, a waste management facility and 2 hostels. NBRC has one auditorium in the IB-1 building with a seating capacity of 84 people and equipped with multi-media projector (MMP) and Information and communication technology (ICT) facility. There are 2 classrooms (one in IB-1 and one in IB3 building) with multi-media projector (MMP) and Information and communication technology (ICT) facility. In addition, there are 3 seminar halls/classrooms, with MMP and ICT facility.

NBRC has large building space for research laboratories, classrooms and practical laboratories for Molecular Neuroscience, Computational Neuroscience, System Neuroscience and Neuroimaging. These facilities are well equipped for cutting edge research activity and teaching. The facilities have been planned and developed after detailed discussions in various meetings with experts. NBRC provides state-of-art laboratory facilities with high-end equipment, reagents as well as computing assistance to ensure hassle-free research environment to all the students of NBRC. It is due to this reason that NBRC has been able to attract and retain scientists, expert in their field.

For M.Sc Neuroscience practical, we have designated labs. The PhD students rotate in appropriately equipped faculty labs. In addition, NBRC has multiple computer terminals (~25) for students to compute and analyze their data.

NBRC provides disabled-friendly environment equipped with elevators and ramps for wheelchair assisted individuals in all research buildings and hostels.

File Description	Document
Paste link for additional information	View Document

4.1.2 The institution has adequate facilities for cultural activities, yoga, games (indoor, outdoor) and sports. (gymnasium, yoga centre, auditorium, etc.)

Response:

There is one Volley Ball court (130 square meters), one Basket Ball court (600 square meters), one Football ground (3120 square meters), two Badminton courts (82 square meters each), one Table Tennis room (34 square meters in Hostel 2) and two Gymnasiums (one in the Guest House and another in Hostel 2). We have four cafeterias (IB-3: 135 square meters, IB-1: 312 square meters, hostel 1: 241 square meters and hostel 2: 58 square meters). Work is going on to make all of them functional. NBRC students organize

annual event named TANTRIKA. In this annual event, intra-university sports and cultural competitions are organized and the winning students/ teams are felicitated by awarding prizes. NBRC provides support in terms of logistic, transportation and funds to organize TANTRIKA. NBRC also provides medical facilities to the students and teaching/ non-teaching staffs living on campus. One Resident Medical Officer (RMO) and two nurses (one male and one female) stays on-campus to provide immediate medical assistance to students and supporting staffs. In addition, NBRC provides round the clock dedicated transport vehicle to the students/ staff staying on campus to visit hospital in case of any serious ailment/emergency. NBRC has made special association with Rockland hospital (Currently named as Medeor Hospital) for its student and staff, which is only 4 Km from campus.

File Description	Document
Paste link for additional information	View Document

4.1.3 Availability of general campus facilities and overall ambience

Response:

NBRC is located at the foothills of Aravali range of mountains. This keep our students in close proximity to the nature. From NBRC, one can very easily enjoy the serene beauty of Aravali hills and greenery around. Till today, NBRC has developed its infrastructures by minimal interference with nature. Inside NBRC campus, several Acasia species are retained and maintained throughout the year. We have continued to retain the flora and fauna found in nearby Aravali hills. Throughout the year, blue bulls (Nilgai) visit our campus. In addition, peacocks, deer, wild fowls, rabbits and many other small animals and birds enrich the ambience of NBRC naturally.

Besides these natural gifts, NBRC has developed hostels to accommodate all its students, research assistants and research associates. Hostels are equipped with gymnasium. In addition, we have one football play ground with nicely maintained grass over it. We have also one volleyball field, basketball court and few badminton courts. Furthermore, NBRC has also developed quarters for married scholars and Staff III and IV personnel.

Roads inside NBRC are well maintained and follow Swatch Bharat philosophy. Boundaries of roads and all the humps are painted with appropriate contrasting colors to minimize accidents.

NBRC research buildings have adequate numbers of washrooms and toilets for males and females separately. Automated taps are added in each wash rooms to restrict spread of any contagious disease like covid-19.

File Description	Document
Paste link for additional information	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during

the last five years (INR in Lakhs)

Response: 12.28

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
305.23	174.27	268.74	125.98	431.67

File Description	Document
Upload audited utilization statements	View Document
Institutional data in prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

Response:

- Yes The Library is fully automated.
- Name of the ILMS software(**Libsys**)
- Nature of automation (fully or partially) (**Fully**)
- Version is (**5.0**)
- Year of automation is (**2004**)

File Description	Document
Paste link for additional information	View Document

4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

Response: B. Any 3 of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)**Response:** 277.76

4.2.3.1 Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
314.31	303.86	288.30	263.21	219.10

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the last completed academic year**Response:** 73.53

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 25

File Description	Document
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	View Document
Any additional information	View Document

4.3 IT Infrastructure**4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)****Response:** 100

4.3.1.1 Number of classrooms and seminar halls with ICT facilities

Response: 6

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Paste link for additional information	View Document

4.3.2 Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

Response:

NBRC campus research network is running on 10Gbps fiber optic backbone with redundant paths over manageable network components. The redundancy and robustness are built in the network architecture which is used to provide various central services to the users for aiding in research and academic activities. The core institute network is integrated with central wireless controller and wireless access points installed across the campus including all institute buildings and student hostels. The student hostels Wi-Fi network has been upgraded in the last 6 months.

The institute's wireless network is integrated with EDUROAM (Educational Roaming) by integrating it with Indian NREN (i.e. ERNET-India), it provides seamless and secure wireless connectivity to NBRC students and scientists visiting in any other EDUROAM participating institutions across the world.

Lately, 12 additional terminals with printing and scanning facility as a common facility for NBRC students and researchers has been created which is operational 24x7 with CCTV monitoring. Additionally, 10 terminals are also available in MSc Lab, & FMRI facilities for use by students. Each lab also has dedicated Lab computers available for use by students.

File Description	Document
Paste link for additional information	View Document

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

Response: 0:1

File Description	Document
Upload any additional information	View Document

4.3.4 Available bandwidth of internet connection in the Institution (Leased line)

Response: A. ?1 GBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.5 Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing

Response: C. 2 of the above

File Description	Document
Institutional data in prescribed format	View Document
Links of photographs	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 87.72

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)

2019-20	2018-19	2017-18	2016-17	2015-16
1693.76	1890.55	1777.94	1699.20	2013.81

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The management of NBRC comes under the purview of Chief Administrative Officer who is assisted by the Chief Engineer, Assistant Executive Engineer and the subordinate staff in the maintenance of buildings, class-rooms and laboratories.

All the operation and routine maintenance work is done through the contractors by entering into annual maintenance contracts. Those includes, maintaining electrical, civil, AC, plumbing works and maintenance of physical ambience. Most high end laboratory instruments are maintained through AMC or CMC. Most of the research equipment's are under the control of Scientists who take care of their regular maintenance. Computational facilities in laboratory and digital classroom facilities are maintained by the DIC support staffs. Classrooms facility comes under the control of Academics who take care of the necessary maintenance. Library is managed by officer along with his support teams.

A number of steps have been taken by NBRC to improve the physical ambience of the campus. For example, fast growing species of trees have been planted and green belt has been created along the approach road and other vacant spaces. Horticulture work/ laying of flower beds is done. High mast lightings on the campus and lightings on the approach road and drip irrigation systems have been provided. Lawns are well-maintained. The buildings, road signs, speed breakers, sentry posts at the barrier and other strategic places are periodically painted. Last but not the least, our sports facilities are monitored by hostel warden and any up-gradation or maintenance is done by engineering section

File Description	Document
Upload any additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

Response: 562.75

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) year wise during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

2019-20	2018-19	2017-18	2016-17	2015-16
107	110	103	92	96

File Description	Document
Upload self attested letter with the list of students sanctioned scholarship	View Document
Institutional data in prescribed format	View Document

5.1.2 Average percentage of students benefited by career counseling and guidance for competitive examinations offered by the Institution during the last five years.

Response: 270.58

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

2019-20	2018-19	2017-18	2016-17	2015-16
53	35	40	58	48

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

5.1.3 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. Awareness of trends in technology

Response: A. All of the above

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Any additional information	View Document
Link to Institutional website	View Document
Link for additional information	View Document

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
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Link for additional information	View Document

5.2 Student Progression

5.2.1 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 100

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

2019-20	2018-19	2017-18	2016-17	2015-16
2	4	4	3	4

5.2.1.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
2	4	4	3	4

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

5.2.2 Average percentage of placement of outgoing students during the last five years

Response: 87.23

5.2.2.1 Number of outgoing students placed year - wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
11	11	10	6	8

File Description	Document
Self attested list of students placed	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.2.3 Percentage of student progression to higher education (previous graduating batch).

Response: 63.64

5.2.3.1 Number of outgoing student progressing to higher education.

Response: 7

File Description	Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.

Response: 0

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

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

5.3.2 Presence of Student Council and its activities for institutional development and student welfare.

Response:

NBRC has Students Representative Body to independently look after welfare of students. The committee members along with students meet and discuss various issues that concern students. The students enrolled in Master's degree programme as well as enrolled in PhD degree programme participate in these discussion. In addition to the Students Representative Body, there is a "Hostel Committee" and also a "Mess Committees". These committees are also geared to cater to the needs of students. A well-functioning library is a very important component of student's academic life. In addition to hard copies, the students access journals and books through online portals. Students provide valuable feedback in the library issues by being part of the library committee. Their suggestions have indeed been helpful in making the library more student-friendly.

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 3

5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
3	3	3	3	3

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.4 Alumni Engagement**5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.****Response:**

A formal Alumni Association is in the process of registration. However, NBRC alumni have been extremely helpful to the students of subsequent batches. The NBRC alumni are in touch with students via social media platforms as well as via emails and phone calls. The students get in touch with the alumni through these media when they have problems in their experiments and need trouble shooting. In addition to trouble shooting, the students discuss various aspects of important and burning scientific issues. The students also get in touch with the alumni for further studies. For the graduating students of Master's degree, the alumni provide relevant information regarding prospects for enrolling in PhD programmes of Institutions abroad. For graduating PhD students, the alumni provide information regarding postdoctoral opportunities abroad. The alumni help students in an informed decision making by providing information about research laboratories abroad that may not be publically available but play a crucial role in deciding for PhD or postdoctoral positions. Thus, the NBRC alumni have indeed been extremely helpful to the students of NBRC in various important activities.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

5.4.2 Alumni contribution during the last five years (INR in Lakhs)

Response: E. <5 Lakhs

File Description	Document
Link for any additional information	View Document

NAAC

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance.

Response:

Mandate or Mission:

- Scientific investigation: To promote basic research to understand the function of healthy and diseased brain.
- Education: To generate trained human resource with capacity to carry out inter-disciplinary work in neuroscience.
- National-level facilitation: To promote neuroscience in India through networking among institutions across the country.

Vision

The vision for NBRC is that it should emerge not only into a world-class institute for brain research but also create a vibrant, active neuroscience community by catalyzing the overall growth of this discipline in the country. The expected benefit from this initiative would be the generation of skilled manpower in this important area of research who would help India achieve an international leadership in this frontier area of science. This initiative would also help Indian neuroscientists to participate in global research efforts as equal partners. The knowledge base generated from these efforts would help diagnostic tools and therapeutic strategies for treatment of brain-related disorders. A unique role for NBRC is that it will act as a node with linkages to other centres carrying out neuroscience research in the country. As per mandate, NBRC is to act as a nodal agency to promote, encourage and augment effective linkages, alliances and affiliations between the Centre and national and international scientific and research institutions, bodies, agencies, laboratories and other organizations working in the field of brain and neurosciences research, thus acting in effect as the "hub of the wheel" rather than the wheel itself.

Vision and mission :

For each Five-Year Plan, the faculty develop a report of research, academic and logistic requirements of the Institute. Overseas and Indian experts participate in the program and the perspective of the Institute is advanced and adapted periodically to keep abreast of the changing national and international needs of neuroscience. The aspects considered are from the areas of research, training and national level coordination of neuroscience.

Teaching and learning

Faculty participate or organize special sessions on neuroscience teaching or neuroscience career advancement, in India's premier neuroscience society, Indian Academy of Neuroscience. Some faculty members also attend the annual conferences of U.S. Society for Neuroscience, Human Brain Mapping, American Vision Society, etc., where programmes on neuroscience teaching and learning are well integrated features. Office of the Registrar participates in the annual conference of the Association of

Indian Universities. The aspects considered are didactic training, practical training, research training, training on science communications and training on critical analysis of scientific report and scientific data.

Research and development

The aspects considered for institutional development are the Basic Investigations, Clinical Investigations and Population Investigations. The features attended to are the Fundamental Greenfield Research, Application-driver Research (with IPR and patentability of techniques) and the research that has direct societal implication as in clinical brain-related issues with children or aged-populace.

File Description	Document
Link for additional information	View Document

6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

The management of NBRC always keeps the mandate and vision in mind, and remains engaged in furthering the goal enshrined to it. For this purpose frequent formal and informal meetings with the faculty and officers are held in addition to the regular meetings of various committees constituted to make recommendations for system development as well as improvement and policy implementation.

Each faculty reports directly to the Director. Any issue is discussed in the faculty meetings where the views are taken and then a committee is constituted by the Director which gives its observations/ opinion/ findings. These observations/ findings/ opinions are discussed in Board of Studies and in Academic Council meetings, where faculty of NBRC are members, and the membership also includes teachers from premier university-level organizations as Delhi University, JNU, IISc, AIIMS, IITs, etc. Then the recommendations of the Academic Council are deliberated in the Governing Council, the body that includes members from NBRC Society, D.B.T., Government of India, well-known academicians and faculty members from premier institutions, and a decision is arrived at. Thereafter, the decision taken in Governing Council is implemented. This procedure is found to be very effective as there are a number of checks and balances and due weightage is given to different opinions and advices tendered by the members from both inside and outside NBRC.

The management ensures that faculty at NBRC is selected from amongst the best in the field, with overseas exposure and the selection is done by a rigorous screening process involving outside impartial experts. Advertisements are made in national dailies, website and overseas journals. Similarly, the students are selected from diverse fields such as basic sciences, engineering, information technology, medical, etc. Further NBRC follows a highly rigorous annual evaluation schedule and extends all facilities to the faculty and students to exhibit excellent performance, both in national and international forums.

The NBRC management holds annual performance evaluation meetings for faculty, as well as brain storming sessions on need basis. For example, Institutional meeting on future planning was held (November, 2012 and March, 2014).

NBRC encourages the culture of participative management. For this purpose, various regular committees consisting of the members of faculty and officers stand constituted to look into and make recommendations on various issues and further ad-hoc committees are also constituted to consider and recommend specific issues arising from time to time. In many of the committees the coordinators are the faculty members themselves.

Regard to knowledge management strategy, the innovations coming out of the Institution are processed through the intellectual property section at the Registrar's office. Further, in case knowledge generated out the Institute's activities has translational potential, this knowledge-base is subject to field application or trials, through collaborating organizations and medical centres (e.g. Biotech Consortium India Ltd., AIIMS, KGMC-Lucknow, IIT-Delhi, Autism Society of India, etc.).

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic plan is effectively deployed.

Response:

Being an apex institute of neuroscience research in the country, NBRC has been at the forefront in carrying out cutting-edge brain research and training on par with the international research in the field. The Centre has carved a niche for itself in the area of neuroscience research through a robust research and training programme in the area of neuroscience that is unmatched in the country.

The NBRC has emerged as a world-class institute for brain research and has created a vibrant, active neuroscience community by catalysing the overall growth of this discipline in the country. The expected benefit from this initiative of NBRC would be the generation of skilled manpower in this important area of research that would help India achieve international recognition in this frontier area of science. This initiative would also help Indian neuroscientists to participate in the global research efforts as equal partners. NBRC's vision has already started to bear fruits as hundreds of neuroscience researchers trained by NBRC are now employed at various levels all over the world and are actively engaged in brain research. The knowledge base generated from these efforts would help diagnostic tools and therapeutic strategies for treatment and thereby help in reducing the burden of brain-related disorders in the country as well as abroad. NBRC is currently ranked high and functioning as a node with linkages to other centres at the national and international level for carrying out neuroscience research relevant to the country. This institution has also been recognized as an "Institution of Excellence" through a Gazette notification.

In addition to its neuroscience education program, NBRC is spearheading a national level program to understand the disease burden of dementia in the Indian population and address the same through

research. By building a nexus between basic scientists, and clinicians and coordinating the Dementia Science Program for the nation the institute facilitates and fosters brain research and training at various national institutions in India.

NBRC prepares a perspective plan for future development and regularly engages its faculty in coming up with new ideas to maintain our positions as leaders in neuroscience research. The teaching program at this institution addresses the needs of the students who wish to pursue neuroscience research as their careers and provides them advanced training in brain research that is unmatched in the country. The students use a multi-disciplinary approach to address important questions in neuroscience research. Both the programmes have been very successful and the research publications and successful students coming out of multi-disciplinary research are a testament for the same.

File Description	Document
Any additional information	View Document
Strategic Plan and deployment documents on the website	View Document
Link for Additional Information	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

Response:

NBRC was established with a mandate to be a premier institution of national and strategic importance in the field of research, education and dissemination of information in the field of neuroscience. As such it is acting as a nodal set-up for collaborative research and also as a hub for sharing knowledge. The contribution is made in the form of publication of articles in journals, patents, intellectual property rights, proceedings/ documentation of NBRC conferences/ workshops, invited lectures, seminars, authoring book chapters, working as guest faculty, arranging of summer/ winter courses and workshops for students of other institutions across the country as well as working on various projects in collaboration with different national and international agencies, etc.

Likewise, the research performance of each laboratory (output of faculty and students) is monitored and evaluated annually by the Scientific Advisory Committee that consists of leading national and international experts (that includes members from U.S. National Academy of Science and Royal Society, U.K.). Each laboratory's progress and modifications, viz-a-viz the Committee's suggestions are carefully taken into account by the Scientific Advisory Committee.

Quality of research - Faculty are expected to maintain a strong publication record. Most of the faculty publishes their work in peer reviewed, high impact factor journals.

Quality of teaching and training – Students are evaluated during their course through internal tests, after the semesters through written exams test papers of which are prepared by external examiners. There after the students have to pass the comprehensive viva voce that is chaired by an external examiner. Doctoral

committee members monitor the progress of all students by regular meetings throughout the tenure of students.

Thesis evaluation is done by national and international experts in the field.

Faculty assessment – Faculty are evaluated annually through the presentations to an all external research and area experts during Scientific advisory committee meetings. The assessment and promotion follows a rigorous process that involves inputs from at least three area external experts (including one International) on the written documentation prepared by the faculty, following which the assessment

File Description	Document
Any additional information	View Document
Link to Organogram of the University webpage	View Document

6.2.3 Institution Implements e-governance covering following areas of operation

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

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff .

Response:

The accountability is ensured through productive output of publications, patents and teaching, and these are actively weighted during promotion assessment of faculty, which happens through exacting interviews that has leading national academicians as its members.

Various appraisal methods are used to arrive at important decisions. The outcome has overall been very good.

Some of the important decisions are :-

- (i) Introduction of Orientation Course at the beginning of course-work;
- (ii) Introduction of Quantitative Analysis Course in the initial portion of course-work;
- (iii) Starting didactic lecture mode of Clinical Neuroscience Course;
- (iv) Shifting the laboratory allotment for Ph. D. thesis after the final comprehensive examination
- (v) Starting lectures on Systems Biology in the latter portion of course-work.

The following schemes are available for teaching and non-teaching staff:

- (i) Health Care Scheme:
 - (a) Medical expenses in respect of self and family members are re-imbursed to the employees by the Institute as per rules;
 - (b) Medical Insurance cover is provided to the employees and their families with M/s. United India.
- (ii) Children Education Allowance is provided to the eligible employees as per rules;
- (iii) L.T.C. is provided as per Govt. of India rules;
- (iv) Contributory Provident Fund Scheme to employees appointed before 1-1-2004;
- (v) NPS to employees appointed on or after 1-1-2004.

The faculty members are encouraged to participate in national and international workshops/ seminars/ conferences, etc. to enhance their professional skills. The non-teaching staff of NBRC is deputed for various short-term training courses organized by various institutes such as NIFM, IIPA, etc.

Further, the following concessions or welfare measures are available to the campus inmates, whether faculty, staff or students such as

- (i) Round the clock medical care for which Resident Medical Officer is posted.
- (ii) Twice a week bus transportation facility to Gurgaon or Gurgaon Metro Station;

(iii) Round the clock transportation facility to carry patients to any hospital at Manesar or Gurgaon in case further medical treatment is required;

(iv) Agreement with Rockland Hospital, Manesar for subsidized treatment and ambulance pick up from NBRC campus.

(v) Transport facility to the school-going children of the NBRC staff staying at the campus.

File Description	Document
Any additional information	View Document

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

Response: 74.58

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

2019-20	2018-19	2017-18	2016-17	2015-16
15	10	15	9	8

File Description	Document
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Response: 0

6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 0

6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Details of teachers attending professional development Programmes during the last five years (Data Template)	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

The proposals are approved after examination through different layers as per the requirement of the institution. The budget is processed through the Finance Committee of NBRC, whose chairman is the Secretary, Department of Biotechnology, Ministry of Science & Technology, Government of India. All expenditure is incurred following the approved budget outlay and allocated funds. The Utilization Certificate is sent to granting authority periodically.

The annual accounts are audited by an independent Chartered accountant, followed by an internal audit, and finally, by the CAG auditors. All purchase decisions are made as per the Govt. of India guidelines and FRSR rules. The statutory audit of accounts is conducted on an annual basis by a CA firm empanelled with CAG. The audit report of internal & external audit indicates minor procedural lapses and suggestions for remedial action. The compliance report/ reply of audit paras is sent accordingly.

6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).**Response:** 4200**6.4.2.1 Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
750	1300	1500	250	400

File Description	Document
Details of Funds / Grants received from government bodies during the last five years (Data Template)	View Document
Any additional information	View Document
Annual statements of accounts	View Document

6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)**Response:** 0**6.4.3.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document
Annual statements of accounts	View Document

6.4.4 Institution conducts internal and external financial audits regularly**Response:**

Yes, NBRC has a mechanism for internal & external audits. Internal audit is conducted by Internal Audit team of Ministry of Science & Technology and External audit by C.A. firm and the CAG periodically. The annual financial statement is scrutinized by a finance committee approved by Governing council, then placed in parliament along with the annual technical report.

The statutory audit of accounts is conducted by a CA firm empanelled with CAG on annual basis. The audit report of internal & external audit indicates minor procedural lapses and suggestions for remedial action. The compliance report/ reply of audit paras is sent accordingly.

File Description	Document
Any additional information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals.

Response:

The Board of Studies and Academic Council of NBRC act as central bodies that continuously review the teaching-learning process. The structure, duties, and field of operation of each body are given below:

BOARD OF STUDIES:

It comprises of Director as ex-officio Chairperson, all the faculty members, and two members from premier teaching institutions, namely I.I.Sc, and I.I.T., Bombay.

The duties of the Board of Studies consist of making an in-depth study of the curriculum, syllabi, etc., and make recommendations for their upgradation and modification to the Academic Council.

ACADEMIC COUNCIL:

It consists of Director as ex-officio Chairperson, all the faculty members, three educationists of repute from the premier teaching institutes (namely, University of Delhi and A.I.I.M.S) nominated by Governing Council. It is the principal academic body that is responsible for the maintenance of standards of teaching, training, and examination within the Centre.

For the academic research activity, the Scientific Advisory Committee meets every year to evaluate the progress and make suggestions for improvement. This committee consists of experts in the field including experts from the International community. The University has greatly benefitted from their suggestions.

NBRC also has more frequent meetings wherein each faculty member presents their work to all the students and other academic staff of the Centre. Although this is not part of a formal assessment, the suggestions provided during the meeting have benefitted the students and the faculty alike.

Similarly, all plans relating to academic activities are considered, discussed, and approved in the meetings of the Board of Studies and Academic Council. Based on the decisions arrived at or periodic reviews done by the above-referred bodies, improvements in the administrative and academic fields are carried out from time to time.

Regarding the administrative review, NBRC has held meetings in the past to understand the functioning and problems of different administrative departments. The suggestions have been incorporated to improve their functioning.

For every Five-Year Plan, the overall strategy, requirements, and focus of the Institute are updated, reviewed, and revised, and accordingly, adaptations are made by the Institute's academic and administrative set-up and research laboratories, etc. The Five-Year Plan update is developed at intensive meetings of the faculty with national and international experts, the Indian neuroscience community, and the nodal Government of India agency, i.e. Department of Biotechnology, Ministry of Science & Technology.

Thereafter, necessary budgetary provisions are made, and the Plan document is sent to the Department of Biotechnology which processes it for forwarding to the Planning Commission. While submitting the Plan document to the Department of Biotechnology, a presentation on the same is made highlighting the achievements and core thrust areas of the Centre.

IQAC was formed on 07.12.2020 and was revised on 11.02.2021 due to superannuation of the previous Director Dr Neeraj Jain. Both the circulars are attached and the initiatives for quality assurance will be taken in future accordingly.

File Description	Document
Any additional information	View Document

6.5.2 Institution has adopted the following for Quality assurance 1. Academic Administrative Audit (AAA) and follow up action taken 2.Conferences, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4.Orientation programme on quality issues for teachers and students 5. Participation in NIRF 6.Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA).

Response: E. 1 of the above

File Description	Document
Upload details of Quality assurance initiatives of the institution (Data Template)	View Document
Any additional information	View Document
Paste web link of Annual reports of University	View Document

6.5.3 Incremental improvements made for the preceding five years with regard to quality (in case of

first cycle), Post accreditation quality initiatives (second and subsequent cycles).**Response:**

There has been a constant improvement in the academic activities at NBRC. In addition to the regular teaching, NBRC students are benefitted from the lectures and talks by several invited speakers that visit NBRC from various prestigious institutions from around the world. We have registered a year-wise improvement in the number of lectures at NBRC from eminent scientists. Furthermore, we have also organized several international meetings and conferences where several peers in the field have visited NBRC and presented their research.

During the last 5 years, we had several scientific meetings at NBRC such as –

- Indian Academy of Neurosciences meeting – Molecules to mind (2016)
- Advances in Neuroimaging and Applications in Cognitive Disorders (ANACOD 2016)
- Workshop for handling and care of laboratory animals (2017) Brain Modes (2017)
- From synapses to memory: RNA based regulatory mechanisms (2018)

Motors, Microtubules, Trafficking and Transport Meeting (2019)

File Description	Document
Any additional information	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

As per the guidelines of UGC and the Supreme Court, an Internal Complaints Committee (ICC) for Sexual Harassment at the Workplace has been constituted and is functional since 2018. ICC has now replaced the former Sexual Harassment committee. ICC aims to provide a healthy and congenial atmosphere to the staff and students of the University. The cell was constituted to meet the four basic objectives:

- a) To develop the guidelines and norms for a policy against sexual harassment.
- b) To develop principles and procedures for combating sexual harassment.
- c) To work out details for the implementation of the policy.
- d) To prepare a detailed plan of action, both short and long term.

In line with the same, an Internal Complaints Committee at NBRC comprising two female faculty members is in place. The Members of ICC comprises 2 female faculties from NBRC, the Chief Administrative Officer, and an external member Dr. Krishna Menon – a Professor of gender studies at Ambedkar University in Delhi and nationally renowned for her works related with the issues related to gender equity.

Dissipation of information and increasing awareness through sensitization

- (i) The distribution of The Gazette of India notification regarding Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act 2013, to all employees, including contract employees, security guards and hostel supervisors. Those without access to email have been provided a hard copy. The Hindi version has been provided to those unfamiliar with English.
- (ii) The Notification is distributed among students at the beginning of every academic year.
- (iii) Awareness programmes are organized for the sensitization of all concerned.
- (iv) The names, contact number and email id of all ICC members are displayed on the NBRC website and across several locations on campus that are frequented by students (such as hostels, canteens and cafeterias)
- (v) A separate room has been designated for the functioning, and day-to-day activities of ICC.
- (vii) The telephone numbers and email ids of people in supervisory positions in various departments have been made available.

(viii) Provide assistance to the woman if she so chooses to file a complaint

(ix) In each calendar year, the Internal Complaints Committee shall prepare a list of the measures taken to ensure a safe workplace and educational institution for women at NBRC and submit the same to the Governing Council. The number of complaints filed if any and their redressal will be documented.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1.Solar energy
- 2.Biogas plant
- 3.Wheeling to the Grid
- 4.Sensor-based energy conservation
- 5.Use of LED bulbs/ power efficient equipment

Response: B. 3 of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

Response:

Solid waste management

The campus of NBRC is situated at Manesar and has an area of 38.7 acres. The campus has accommodations for students and staff. The waste accumulated from housing and hostels is collected by the housekeeping staff. The waste from all buildings is then collected at a yard located near the boundary wall and is dispatched to the Gurugram municipal waste yard.

Liquid waste management: 100% recycled

The institute has a Sewage Treatment Plant (STP) with a capacity of 350 KL per day and wastewater from housing and other buildings is treated regularly. The treated water is used for irrigation purposes and the system is maintained in such a way that it is used efficiently. Only treated water and no fresh water is used for horticulture purposes. **Waste recycling system.** Compost generation from waste in pits. Natural manure is generated by dumping leaves and green waste from kitchens in pits (350 cubic m) every 6 months.

Biomedical waste management Hazardous waste management

Animal carcasses and other biomedical waste received from laboratories are disposed of using the incinerator installed at NBRC which has a capacity of disposing of 200 kg/day of waste materials. Other bio-medical accessories used during experiments such as glass and plastic-ware are handed over to an authorized agency, that is, M/s. Vulcan Waste Management Company, Gurugram which is authorized by the Haryana State Pollution Control Board.

NBRC has put in place an Institutional Animal Ethics Committee, Human Ethics Committee, and an Institutional Bio-safety Committee, which monitors the disposal of animal carcasses and waste material produced by various laboratories on campus. For disposal of solid and liquid biomedical wastes, regulations and guidelines laid down by the Department of Biotechnology are strictly adhered to.

Research at NBRC which generate biohazard materials can be grouped either in the Risk group 1/ Biosafety Level-1 (regular cell-culture based research programs without any infectious agents) or in Risk group 2/ Biosafety Level-2 (involving research with infectious viruses and recombinant DNA). The Institutional Biosafety Committee has been empowered to take adequate precautionary measures for research involving infectious agents. New protocols using biomaterials are scrutinized and are subject to approval by these committees.

E-waste management

NBRC has a well-defined e-waste management policy. We have restricted the use of CDs and encourage all data transfer either electronically or with the help of pen drives. From time to time, NBRC's engineering division auctions all old monitors and CPUs.

7.1.4 Water conservation facilities available in the Institution:

- 1. Rain water harvesting**
- 2. Borewell /Open well recharge**
- 3. Construction of tanks and bunds**

4. Waste water recycling**5. Maintenance of water bodies and distribution system in the campus****Response:** A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.5 Green campus initiatives include:

1. Restricted entry of automobiles
2. Use of Bicycles/ Battery powered vehicles
3. Pedestrian Friendly pathways
4. Ban on use of Plastic
5. Landscaping with trees and plants

Response: Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy regularly undertaken by the Institution and any awards received for such green campus initiatives:

1. Green audit
2. Energy audit
3. Environment audit
4. Clean and green campus recognitions / awards
5. Beyond the campus environmental promotion activities

Response: C. 2 of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

1. Built environment with ramps/lifts for easy access to classrooms.
2. Disabled-friendly washrooms
3. Signage including tactile path, lights, display boards and signposts
4. Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment
5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

Healthy Habitat:

Despite being close to the National Capital Region, NBRC is far enough to enjoy the luxury of a large open space surrounded by the greens of the Aravalli range. This unique location provides many advantages in terms of preservation of the natural environment, provision of green space, efficient water management, and effective harvesting of solar energy.

Such open spaces have provided healthy habitats for the residents on campus. The impact of good air quality and the peaceful environment on the physical and emotional well-being of those on campus cannot be emphasized enough.

Besides being able to walk and run for exercise, students have a football ground and an open-air basketball facility.

Number of initiatives taken to engage with and contribute to the local community

1. Foundation Day

NBRC has a tradition of inviting students of local schools to visit the campus on its Foundation Day (16th December) every year. Events such as poster sessions, demonstrations of the human brain, microscopy, and a quiz are held entirely by the students and project assistants of NBRC to enlighten the local/ visiting students about various aspects of Neuroscience.

2. National Science Day

Furthermore, NBRC faculty, students, and postdoctoral fellows give lectures on Neuroscience in local

schools and colleges to inspire young students to pursue science as their career and make them aware of its importance, especially on the National Science Day (February 28th, the birthday of Sir C.V. Raman).

3. Brain Awareness Week

NBRC also provides funding to its various network centres to hold a Brain Awareness Week every year. During this period, various centres in the country hold a week-long event including poster sessions lectures promoting brain research, and awareness of the brain in health and disease to students and the general public.

4. A memorandum of understanding (MoU) was signed by the Civil Hospital, Gurgaon, the Translational Health Science & Technology Institute and NBRC on 28-11-2011. The main objective of this MoU is to collaborate in conducting human research while supporting available clinical services at Civil Hospital, Gurgaon and to provide exposure to intermediate level health care centres, their problems and needs, for researchers to devise appropriate research programmes to provide sustainable solutions in collaboration with clinical departments.

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

To promote national integration, communal harmony, spreading the message of goodwill towards everyone and eschewing violence, many events are organized regularly at NBRC.

As part of the **Sadbhawana Diwas** and **Anti-Terrorism Day**, students and staffs take a pledge to work for “the emotional oneness and harmony of all the people of India regardless of caste, region, religion or language” and to resolve all differences “through dialogue and constitutional means without resorting to violence”.

An **Integrity Pledge** is taken for a Corruption Free India.

Also, **Swatchh Bharat Abhiyan** and **Yoga Day** are also observed.

Flag hoisting ceremony on every Independence day by the Director, NBRC has been a tradition that has been followed since the inception of the institute.

The idea of an International Yoga Day was first proposed by the current Prime Minister of India, Narendra Modi, during his speech at the United Nations General Assembly (UNGA). In line with the same, Yoga sessions at NBRC are held on 22nd June every year to celebrate the ancient physical, mental and spiritual practice that originated in India. Also, talks and lectures are delivered by yoga experts to emphasize the importance of this practice and to increase awareness about our national identity.

A Swachhta Pledge is administered to all the employees by the Director regularly. Also, employees and students are advised to keep their surroundings clean and green.

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: C. 2 of the above

File Description	Document
Code of ethics policy document	View Document
Any other relevant information	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

1. **Independence Day**, a national festival, is organized every year on 15th August. The Flag hoisting ceremony is performed by the Director, NBRC.
2. On 2nd October 2014, the **Swachh Bharat Mission** campaign was organized to clean the entire campus.
3. Since 2018, we have been organizing the **National Science Day on 28th February** to mark the discovery of the Raman effect by Indian physicist **Sir CV Raman**.

An open day is held at NBRC and several activities such as laboratory visits, research demonstration, and scientific lectures are organized for local school and college-going students. Objectives of the National Science Day include dissipating knowledge regarding:

- (i) Ongoing research activities and achievements in the field of brain research conducted at NBRC,
- (ii) Propagating the message of the importance of science and its application outside the scientific community.

4. Every year, a lecture is delivered by an eminent scientist for the **Professor B Ramamurthy Memorial Lecture**. Professor B Ramamurthy was a pioneering Neurosurgeon and Neuroscientist who along with Professor PN Tandon were instrumental in conceptualizing a research centre dedicated to pursue our

understanding of the brain.

Provide weblink to :

- Annual report of the celebrations and commemorative events for the last five years
- Geotagged photographs of some of the events
- Any other relevant information

1.	National Science Day	http://www.nbrc.ac.in/newweb/nsd2018
2.	Professor B Ramamurthy Memorial Lecture:	http://www.nbrc.ac.in/newweb/rml2018

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant information	View Document
Annual report of the celebrations and commemorative events for the last five years	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:

1. Title of Practice: Best Practices “ICT and E-Governance in organization” Adoption of E-Governance in the organization for transparency and efficiency.

2 Objectives of the Practice :

Development of ICT infrastructure for fulfilling long-term goals of the organization in line with the vision of National Mission on Education through Information and Communication Technology (NME-ICT) initiative of Government of India thus progressively improving the ICT infrastructure for effective integration of Research and Education initiatives and collaborative activities with other centres of Higher Education and Research.

3. The Context

Improvement of ICT environment for Academic and Administrative divisions of the organization by progressively adopting good ICT practices for day-to-day activities. Moving significant paper work to ICT systems for adoption of paperless office in future.

4. The Practice :

The ICT activities of the centre is entrusted to Distributed Information Centre (DIC) of NBRC that

continuously works for improving the ICT infrastructure of the centre for aiding in Scientific, Research and Academic activities of the centre while also providing important support to academic and administrative divisions of NBRC. The technical aspects of the DIC is being run and managed by Information Scientist along with a trained team of technical support personnel working with him. The department is headed by a senior scientist as Coordinator. The activities of the computer centre can broadly be categorized in the following three categories :

- a) Managing the core servers and central infrastructure of the centre viz. campus fibre backbone and converged core network carrying both data and voice traffic and running at 10 Gbps with its integration with National Knowledge Network, Security appliances, voice gateway, wireless controllers, core servers hosting central storage, web servers, mail servers, dns servers and pool of application servers. It also involves round the clock monitoring of critical events affecting the health of central IT services. Sufficient redundancy has been built in the core infrastructure for ensuring 100 percent uptime. Expansion and upgradation of core infrastructure is taken in line with the periodic assessment of services, QoS, upcoming requirements and proposals are put up before the management under the guidance and directions of Coordinator-DIC.
- b) Software development and DTP activities of the centre are directed towards aiding in the scientific and research activities of the centre along-with providing e-governance support to various administrative and academic departments. The development team also help in developing software modules wherever required under the guidance of Coordinator, DIC. The DTP activities evolve along with various content designing and printing activities like annual reports, conference/workshop content and presentation, posters, etc. The Computer Centre has a rich collection of software, hardware, printers, scanners, wide-format plotters to accomplish these activities.
- c) The support personnel team also provides technical support and management of hardware / software / network troubleshooting at user ends. An online support portal for registration of support activities is already operational, users can also approach through other means viz. email and phone in addition to it. All support tickets are registered in the system and professionally attended to. There are clear-cut timelines for handling each type of support ticket and an escalation path also exists for time-critical events. The progress and updates to the support tickets are automatically sent to the user's registered email address.

5. Evidence of Success :

National Brain Research Centre is one of the first institutes that has adopted IPv6 in its network infrastructure, and is integrated with National Knowledge Network (NKN) since 2011 itself at gigabit speed. Several collaborative projects with other research Institutions across India and abroad are already benefitting from it. The Centre has a robust 10 Gbps campus backbone, integrated with campus wide wireless network and a fully functional central data centre and pool of application and core servers for aiding in scientific and research activities of centre. The campus network is a converged network carrying both data and voice traffic, which is also integrated with voice-gateway for external voice traffic, the voice traffic is managed internally through redundant IP-PBX servers and users are provided with IP Phones connected over the data network. DIC has taken significant initiatives in improving the administrative process of various departments with the development of software modules for various activities viz. on-line application initiation and tracking system, online dispatch system, online application system of admission and recruitment activities, etc. This has brought significant improvement in the working of these departments. There are several plans already in the pipeline for adoption of central MIS/ERP system for integration of all academic and administrative activities of all departments and move towards truly

paperless office. Similarly, in the academic and research side several proposals relating to digitization of lectures, digital classrooms, multi-way conferencing and webinar system for aiding teaching activities are also proposed.

6. Problems Encountered and Resources required:

For a new organization, the creation of IT infrastructure, its management, training of manpower and constant up-gradation of infrastructure in line with global advancements require significant financial support. A very good IT infrastructure has been created at NBRC to cater to the needs of a highly scientific research institute. Regular up-gradation of the central computing infrastructure viz. servers, storage, data-centre, etc., and adoption of digital classrooms, conferencing systems, central ERP/MIS systems, etc., is essential for which funds on regular basis are required.

File Description	Document
Best practices in the Institutional web site	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 mandate of National Brain Research Centre (NBRC) is to pursue research to understand brain function in health and disease, generate trained human resources with the capability to carry out interdisciplinary research in neuroscience and to promote neuroscience in India through networking among institutions across the country. NBRC has a multidisciplinary group of *students and* scientists with research activities encompassing molecular/cellular studies to human behavior, to understand functioning of the brain in normal and disease conditions, such as neurodegenerative, neuro-oncological, infective, developmental disorders.

Students graduating from NBRC with degrees of Masters in Neurosciences and Ph.D in neurosciences or both are excelling in their careers. Even in its early stages and just 14 years of its age, this institution has so far provided 6 successful Scientists and Faculty for

leading institutions in this country. **This is in addition to numerous Post Doctoral Fellows and researchers that are pursuing high quality brain research around the globe.**

In addition to the Human Research Development by offering Masters and Ph.D program, NBRC has made significant research contributions in Brain Research. World class research facilities at this institution have helped NBRC students to pursue high class research that has resulted in a staggering 291 research publications in last 5 years and 18 patents.

NBRC has a major initiative in the area of identifying novel therapeutics for brain inflammation, infection and degenerative damage.

Our pioneering research has dissected the crucial regulatory role of neuro-inflammation in the pathogenesis of Japanese encephalitis (JE). By exploring the pathways which are involved in inflammation, we have identified minocycline, a second generation tetracycline, with therapeutic potential in JE. **Based upon pre clinical study done at NBRC, recently a Phase II clinical trial has been completed at Chattrapati Shahuji Medical University (CSMMU), Lucknow**, where minocycline has been used as a therapy for JE patients and the patients with Acute Encephalitis Syndrome (AES). The outcome of the trial showed that Minocycline had beneficial effect in JE and AES, especially in those patients who survived the initial days in hospital. **These findings could form the basis for planning a**

larger study and possibly including minocycline in the management of AES and JE as seen here. Our work not only provides a new and general principle for cure of the whole spectrum of neuroinflammatory diseases that include infection of the CNS, but also other neurodegenerative disorders that affects millions of people worldwide.

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

5. CONCLUSION

Additional Information :

Campus at a glance:

The lush green campus of NBRC is located at the foothills of the Aravalli mountain range in Manesar, a rapidly flourishing industrial town in Gurgaon district, Haryana. Lying off the National Highway 8, the campus is well connected to New Delhi at one end and Jaipur at the other.

India is an epitome of diversity. The students of NBRC hailing from different regions of our country reflect this diversity in terms of culture, languages, ethnicity and ideas. This expansive diversity offers students the unique opportunity to witness and imbibe different perspectives and broaden their horizons. The NBRC student community is a closely knit one wherein everybody knows each other, thus carving amazing friendships along the way.

In a nutshell, NBRC, with all its amenities and tranquil location, offers its students a pleasurable stay contributing towards their all-round academic and personal development.

Concluding Remarks :

Students and faculty of NBRC hail from different parts of India reflecting diversity in ethnicity, culture, language and ideas. They also come from diverse educational backgrounds - from microbiology to medicine, from molecular biology to electrophysiology, from biotechnology to computer science and engineering. The interdisciplinary curriculum caters to students from non-life sciences background such as physics, chemistry, psychology and engineering. NBRC, therefore, attracts highly talented students from all disciplines across the country who are passionate about neuroscience and creates a scientifically healthy and research-friendly environment for them.