

Annual Report 2017-18



NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING & RESEARCH, BHOPAL

(Govt. of India, Ministry of Human Resource Development)

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ABBREVIATIONS

AICTE	All India Council for Technical Education
BOG	Board of Governors
BU	Barkatullah University
CDTP	Community Development Through Polytechnics
CPDA	Cumulative Professional Development Allowance
CPSC	Colombo Plan Staff College, Manila
CSVТУ	Chhattisgarh Swami Vivekanand Technical University
EdCIL	Educational Consultants India Limited
GTU	Gujarat Technological University
INDEST	Indian National Digital Library in Engineering Sciences & Technology
LR	Learning Resource
MHRD	Ministry of Human Resource Development
MOOCs	Massive Open Online Courses
MSBTE	Maharashtra State Board of Technical Education
NBA	National Board of Accreditation
NITTTR	National Institute of Technical Teachers' Training and Research
NPTEL	National Programme on Technology Enabled Learning
NSDC	The National Skill Development Corporation India
PG	Post Graduate Programme
Ph.D.	Doctor of Philosophy
PWD	Persons with Disabilities
RGPV	Rajiv Gandhi Proudhyogiki Vishwavidyalaya
SWAYAM	Study Webs of Active-learning for Young Aspiring Minds
TCS	Technical Co-operation Scheme
TNA	Training Need Assessment
TTTI	Technical Teachers' Training Institute
UNESCO-UNEVOC	United Nations Educational, Scientific and Cultural Organisation's International Centre for Technical and Vocational Education and Training (TVET)



MESSAGE FROM THE DIRECTOR

At the outset, it's an honour to present the annual report 2017-18 of NITTTR, Bhopal. The institute essentially has a change agent role to implant innovations and reforms in the client systems through the supporting roles of research, training, development, dissemination & facilitation. National Institute of Technical Teachers' Training & Research is on the path of tremendous growth and development. Amongst the four NITTTRs, it has established itself as one of the innovative technical teachers and research institutes in the country. NITTTR Bhopal is strongly adapting its mission and vision for the institute to be the world class leader for comprehensive development of technical education and training systems. NITTTR Bhopal will act as a centre of excellence to intensify teacher education for improving quality and performance of technical institutions.

The institute undertook a project on production of Massive Open Online Courses (MOOCs) in the area of Teacher Education sponsored by MHRD under Study Webs of Active-learning for Young Aspiring Minds (SWAYAM) platform. The institute has also commenced Maharashtra State Board of Technical Education (MSBTE) Curriculum Redesign Project on the lines of outcome-based curriculum which is a mandatory requirement of NBA. Apart from these, a project by Chhattisgarh Swami Vivekanand Technical University (CSVTU), Chhattisgarh for Curriculum Revision for Diploma and Allied programmes had been taken up.

The institute has become a major resource institution and a center of excellence for the overall growth and expansion of technical education system of the country and bears larger responsibility to contribute to a wide-ranging diverse human resource market. Apart from polytechnic and engineering colleges it also serves professional institutions, industry, public service organizations, vocational education and community at large as per their derived needs in overall human resources development. In all 224 short term training programmes were conducted during 2017-18 in which 5926 participants and 42949 man-days training was provided to various clientele. 60 Video Lectures and documentaries were produced and 4 e-contents were developed. Research & Development being one of the major mandated activity of the institute, 10 candidates were awarded Ph.D. Degree, 08 have submitted their thesis and 32 Ph.D. candidates are pursuing their research work. There are 15 registered students for Masters level programmes being offered. 85 M. Tech. Dissertations were completed and 10 are in progress. Total of 111 research papers were published in different International Journals, conference proceedings and publications during the ensuing period.

The institute is supporting Community Development Through Polytechnic (CDTP) scheme of Government of India through 97 Community Polytechnics in the Western Region. The Institute is also supporting 14 Polytechnics to implement the scheme for integrating person with disabilities in the main stream of Technical and Vocational Education (Persons with Disabilities (PWD) scheme).

The institute became a member of E-ShodhSindhu (A Consortium for Higher Education Electronics consortia) to gain access to large number of e-journals. It also availed access to National Programme on Technology Enhanced Learning (NPTEL) for educational resources developed under the National Mission on Education through ICT. The institute has developed sixty video Lectures and documentaries during the year for dissemination and use by the students and faculty, and along-with, also promoting and encouraging the use of NPTEL Video Programmes among the engineering colleges and polytechnics of the Western Region. These programmes are being used in the prescribed courses of our long term and short term programmes to strengthen the pedagogy and learning of students.

Lastly, I would like to thank all our stakeholders and industry partners for working with us in synergy to increase our potential and complement our strengths. We hope that the excellent cooperation would be extended and strengthen further in the years to come.

Dr. C. Thangaraj

EXECUTIVE SUMMARY

National Institute of Technical Teachers' Training and Research (NITTTR), Bhopal has taken on the challenge of streamlining its internal capacity by improving in the priority areas of capacity development, strengthening the programme offering, resource development and dissemination, and in-house improvements. In light of the future expectations and desires, NITTTR, Bhopal is repositioning itself as the hub of the Next Generation Teachers' Education, Training & Research in the country. NITTTR, Bhopal is providing its services to State Directorates and Boards, polytechnics and engineering colleges, industry, field agencies and the community polytechnics through its short term programmes and workshops, curriculum development including testing and examinations, education management, educational research, instructional resources development, e-content development, video development for MOOCs for SWAYAM platform, promotion of institutional autonomy and flexibility in programmes, vocational education, extension services, consultancy and long-term programmes.

- Dr. C. Thangaraj took over the charge of Director on 17th April 2017.
- MHRD nominated members to NITTTR, Bhopal Society and BOG on 1st August 2017.
- During the current academic calendar 224 training programmes were conducted in which a total of 5926 participants from various institutions participated. Overall 42949 participant days of training was conducted during April 2017 to March 2018. This includes fifty-two induction training programmes where 21339 participant days' training was provided to 1822 newly recruited teachers in engineering colleges and polytechnics.
- The institute is developing "Outcome Based Curriculum" for Diploma Programmes of 18 disciplines for Maharashtra State Board of Technical Education (MSBTE) using participative approach. Curricula of 90 courses were developed during 2017-18. Similarly, curriculum redesign project was undertaken for Chhattisgarh Swami Vivekanand Technical University (CSVTU). Curricula of 123 courses for Diploma Programmes of 15 disciplines were developed.
- The institute undertook massive project of producing video presentations involving faculty and experts for thirteen Massive Open Online Courses to be launched on SWAYAM platform. 13 Introductory videos and 31 other video presentations were produced for 13 MOOCs allotted to NITTTR, Bhopal. Sixteen other video programmes were produced during the period including video presentations by teacher trainees during training programmes. In total 60 videos and 4 e-content were developed.
- The Teaching Learning Centre National Project under Pandit Madan Mohan Malviya National Mission on Teacher and Teaching was awarded to NITTTR, Bhopal in January 2018 funded by MHRD. For this project Advisory body was formed comprising of members from NSDC, national level members from CII and representatives from MHRD.
- 111 research papers were published/ presented in national/ international journals/ conferences by the faculty of the institute. Under the scheme of CPDA Twenty-nine faculty members were nominated for participation in national and international conferences. During this academic year 10 candidates were awarded Ph.D. Degree, 08 have submitted their thesis and 32 Ph.D. candidates are pursuing their research work, 85 M. Tech. Dissertations were completed and 10 are in progress.
- During 2017-18 the institute conducted CDTP workshops for polytechnics of M.P., Maharashtra, Gujarat and Goa states for planning and monitoring of the scheme. The institute also supported fourteen polytechnics in implementing the scheme of Persons with Disability (PWD) of Govt. of India. NITTTR conducted 8 programmes under CDTP and PWD schemes and trained 178 officials.
- The institute has enhanced its outreach through collaborative projects, programmes and services with agencies like Madhya Pradesh Skill Development Directorate, Department of Science and Technology, Ministry of Science and Technology, GOI.
- The Reservation Policy for SCs, STs and OBCs for appointment of faculty/ staff is in place, however, no appointments/ recruitments have been made during the current year.
- नगर राजभाषा कार्यान्वयन समिति के तत्वाधान में संस्थान में विभिन्न विषयों पर कार्यक्रम/ कार्यशालाएं तथा प्रशिक्षण आयोजित किये गए जिसमें संस्थान तथा अन्य शासकीय/ केन्द्रीय कार्यालयों से अधिकारी/ कर्मचारीगणों ने भाग लिया.

PART - I

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NITTTR, Bhopal Society

1.	-	Chairman
2.	Representative of IFD (MHRD)	Ms. Darshana M. Dabral Joint Secretary & Financial Advisor Integrated Finance Bureau, Government of India, Ministry of Human Resource Development Room No.120-C, “C” Wing, Shashtri Bhawan, New Delhi 110001
3.	Representative of Technical Education Bureau (MHRD)	Shri Madhu Ranjan Kumar, Joint Secretary (DL & BP) Department of Higher Education Government of India, Ministry of Human Resource Development Room No. 122-B-C, Shastri Bhawan New Delhi – 110 001
4 – 8	Five Directors of Technical Education (DTEs)	1. DTE, Govt. of Chhattisgarh, Raipur 2. DTE, Govt. of Goa, Panaji 3. DTE, Govt. of Maharashtra, Mumbai. 4. DTE, Govt. of Kerala, Trivandrum 5. DTE, Govt. of Uttarakhand, Dehradun
9.	AICTE Representative	Prof. (Dr.) Usha Natesan Advisor-I, AICTE, 7th Floor, Chanderlok Building Janpath, New Delhi - 110 001.
10.	Representatives of the University in the Region	Vice Chancellor, R.G.P.V., Bhopal
11.	Member Secretary	Dr. C. Thangaraj Director & Member-Secretary NITTTR, Bhopal



Board of Governors

1.	Chairman	-
2.	Representative of IFD (MHRD)	Ms. Darshana M. Dabral Joint Secretary & Financial Advisor Integrated Finance Bureau, Government of India, Ministry of Human Resource Development Room No.120-C, "C" Wing, Shashtri Bhawan, New Delhi 110001
3.	Representative of Technical Education Bureau (MHRD)	Shri Madhu Ranjan Kumar, Joint Secretary (DL & BP) Department of Higher Education Government of India, Ministry of Human Resource Development Room No. 122-B-C, Shastri Bhawan New Delhi – 110 001
4 – 8	Five Directors of Technical Education (DTEs)	1. DTE, Govt. of Chhattisgarh, Raipur 2. DTE, Govt. of Goa, Panaji 3. DTE, Govt. of Maharashtra, Mumbai. 4. DTE, Govt. of Kerala, Trivandrum 5. DTE, Govt. of Uttarakhand, Dehradun
9.	AICTE Representative	Prof. (Dr.) Usha Natesan Advisor-I, AICTE, 7th Floor, Chanderlok Building Janpath, New Delhi - 110 001.
10-11	Two industrialists /Technical Professionals	1. Shri C.P. Sharma, Managing Director, M/s Daulat Ram Engineering Services Private Limited, Obedullah Ganj, Raisen 2. Dr. Mangesh V. Joshi, Founder CEO, Sanrachana, Nashik, Maharashtra
12.	Representatives of the University in the Region	Vice Chancellor, R.G.P.V., Bhopal
13.	Faculty Representative	Dr. Shashikant Gupta Professor, NITTTR, Bhopal
14.	Member Secretary	Dr. C. Thangaraj Director & Member-Secretary NITTTR, Bhopal.

FINANCE COMMITTEE

1	Chairman, Board of Governors NITTTR, Bhopal	-
2	Member (Representative of IFD, Ministry of HRD, Govt. of India)	Ms. Darshana M. Dabral Joint Secretary & Financial Advisor Integrated Finance Bureau, Government of India, Ministry of Human Resource Development, Room No.120-C, “C” Wing, Shashtri Bhawan, New Delhi 110001
3	Member (Representative of Technical Education Bureau)	Shri Madhu Ranjan Kumar, Joint Secretary (DL& BP) Department of Higher Education Government of India Ministry of Human Resource Development Room No. 122-B-C, Shastri Bhavan New Delhi - 110-001
4	Member nominated by BOG	Vice Chancellor, R.G.P.V., Bhopal
5	Member – Secretary	Dr. C. Thangaraj Director & Member-Secretary NITTTR, Bhopal.



EDITORIAL TEAM

Prof. Aashish Deshpande

Prof. S. S. Kedar

Prof. Deepak Singh

Mr. H. S. Rao

Mr. M. R. Khan

Ms. Anita Lala

Credits:

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Ms. Sudha Mehta (Cover Designer)

Mr. Vatsalya Sharma (Edit Assistant)

Ms. Shobha Lekhwani (Hindi Translation)

Ms. Vijaylaxmi Dubey (Hindi Translation)

Mrs. Bhavana Motiani (Hindi Translation)



1. INTRODUCTION



1.1. About NITTTR, Bhopal

The National Institute of Technical Teachers' Training and Research, Bhopal (Formerly known as Technical Teachers' Training Institute, Bhopal), was setup in 1965 by Govt. of India as a part of an ongoing scheme of quality improvement in technical education in general, and technician education in particular. The institute started by offering short-term and long-term teacher training programmes for technical teachers in order to develop professional competence among polytechnic teachers in accordance with the broad objectives incorporated in EFC Memo no. 23-24/65/T.1 of June, 1966. The institute provided need-based training for the overall development and improvement of technical education system in the States of Chhattisgarh, Goa, Gujarat, Madhya Pradesh, Maharashtra and Union Territory of Daman, Diu, Dadra and Nagar Haveli of the region. The institute is governed, funded and controlled by Ministry of Human Resource Development; Department of Higher Education under MHRD funded Technical Institutions. The Board of Governors, appointed by the Department of Higher Education, governs this institute and it has representation from different stakeholders like technical education system, industry, society and the government.

Based on the recommendations of the different Review Committees appointed by the MHRD, Government of India, the institute has been upgraded and renamed as the "National Institute of Technical Teachers' Training and Research (NITTTR)", Bhopal, vide Ministry letter no. F-7-27/2002-TSD.IV dated 20th October 2003. This has brought about substantial changes in the mandate of the institute enabling it to cross the regional boundaries and function as a resource institution at National and International levels for entire gamut of Technical Education System.

The institute, with its enhanced mandate, has now become a major resource institution and a centre of excellence for the overall growth and expansion of technical education system of the country and bears larger responsibility to contribute to a wide-ranging diverse labour market. Apart from polytechnic and engineering colleges it also serves professional institutions, industry, public service organizations, vocational education and community at large as per their derived needs in human resources development. The institute has also demonstrated its potential for catering to the wide-ranging training & development needs of Technical Education System of the developing countries.

1.2. Mandate of the Institute

The NITTTR has been provided with a new mandate (called “objects”). This mandate is much more comprehensive and all – encompassing than the erstwhile TTTI’s mandate. It envelops the guidelines provided by the recent review committee of the then TTTIs.

The NITTTR, Bhopal is mandated to pursue:

- ✚ Quality training programmes for teachers of polytechnics, engineering colleges, vocational and management education institutions.
- ✚ Organize practical training for technical teachers.
- ✚ Undertake systemic research on the technical education system to develop relevance in training.
- ✚ Perform action research for innovations and interventions related to technical education and institutional development.
- ✚ Evolve strategies for intensifying multi-media package design and production.
- ✚ Design and market or disseminate learning resources.
- ✚ Offer training for teachers in the distance education mode.
- ✚ Training technical teachers from abroad, more particularly ASEAN and SAARC countries.
- ✚ To collaborate with community development agencies and industry for furthering continuing education and vocational education, and
- ✚ Undertake consultancy and extension activity for industry, technical institutions and organizations.

NITTTR, Bhopal develops a calendar of its activities based on the targets derived on the basis of enhanced mandate. Performance outlay and projected outcomes are provided in detail in chapter 5 and significant achievements in chapter 6.

1.3. Functions of the Institute

The functions of the institute as given in the mandate are:

- ❖ To act as a centre for offering quality training programmes for teachers as per need of the client system, covering the entire gamut of technical education including polytechnics, engineering colleges, vocational and management education, at regional and also at national levels.
- ❖ To arrange practical training for technical teachers in industries on a cooperative education plan;
- ❖ To undertake systemic research to provide research inputs for development of technical education training systems and its management;
- ❖ To undertake action research for development of innovative methods, processes and practices for improvement of teaching learning environment in technical and vocational education institutions;
- ❖ To design new instructional system and strategies for production of multimedia learning materials;
- ❖ To develop and disseminate learning resources like textbooks, laboratory manuals, video programs, computer assisted instructional multimedia packages to technical and vocational institutions and other organizations.
- ❖ To offer programs for technical and vocational teachers in distance learning mode using state of the art technologies;
- ❖ To offer course / programs for technical and vocational teachers to suit overseas demand especially SAARC & ASEAN countries;
- ❖ To collaborate with community and industry in organizing continuing and non-formal vocational education programmes and providing extension and consultancy services;
- ❖ To undertake consultancy and extension work for industry, technical institutions/organizations;
- ❖ To serve the states better, establish extension centres of the institute in different states with the approval of the Govt. of India;
- ❖ To provide support services to the government of India's scheme related to technical and vocational education system and as entrusted by MHRD, Government of India, from time to time;
- ❖ To cooperate with educational or other institutions in any part of the world having objects wholly or partly similar to those of the institute by exchange of teachers and scholars and generally in such manner as may be conducive to their common objects;
- ❖ To institute and award fellowships, scholarships, prizes and medals.
- ❖ To fix, demand and receive fees and other charges;
- ❖ To invest and deal with funds and of the society.
- ❖ To prepare and maintain accounts and other relevant records and prepare annual statements of accounts in such forms as may be prescribed by government of India in consultation with the audit office / accountant general office;
- ❖ To do all such things as may be necessary, incidental or conducive to the attainment of all or any of the objects of the institute.

VISION & MISSION of NITTTR, Bhopal

VISION

To be the world class leader for integrated development of technical education and training systems catering to the changing needs while achieving highest level of client satisfaction, quality, professional values and contributing to technological, economic and social development of the country.

MISSION

NITTTR Bhopal will act as a centre of excellence to:

- Intensify teacher education for improving quality and performance of technical institutions.
- Make the technical education a vibrant learning system for producing competent manpower to steer technological and economic development.
- Provide a wide spectrum of client driven services and products through various modes.
- Strengthen networking and synergic partnership with technical institutions; industries, field agencies, and premier national and international organizations.
- Promote creativity, innovations, research and development, professional management practices, concept of learning organization, benchmarking and economics of education amongst client systems.
- Enthuse the spirit of professionalism, values and work ethics, networking and partnership with industry and other organizations and technical institutions.

1.4. Vision Statements of Departments

S. No.	Name of the Department	Vision statement
1.	Civil and Environment Engineering (DCEE)	Civil & Environmental Engineering Department shall proactively strive to become an excellent academic leader, catalytic agent and a contributor keeping in tune with institute vision, to cater to the demands/needs of technical education system, and the HRD needs of infrastructure – cum – construction industries service sectors and community.
2.	Mechanical Engineering (DME)	To promote innovations, research and development in mechanical engineering education to provide world-class human resource in technology and instructional technology areas.
3.	Electrical & Electronics Engineering (DEEE)	To continue to innovate processes to usher into developments in electrical/electronic engineering education, keeping excellence in focus and deliver quality services to match the needs of the technical education system, industry and society.
4.	Applied Science (DAS)	To promote innovations, research and development in applied sciences and science education training to provide new knowledge, applications and resource in applied science and R&D.
5.	Computer Engineering & Applications (DCEA)	To strive to become world class Centre of Excellence in the area of Computer Education and Training development and dissemination of application, systems and software using contemporary and futuristic IT environment catering to the changing needs while achieving highest level of client – satisfaction, quality and professional values.
6.	Electronic Media (DEM)	To strive to become the-state-of-art media development centre and use innovative technologies to influence quality of instructions in technical institutions and bring positive changes in community through its programmes, products and services.
7.	Management (DM)	To develop department of Management as a centre of excellence to offer world class education, training and research in the area of management for technical education systems, industries and field agencies at national and international level.
8.	Education & Research (DER)	To design and develop innovative models of training and devise strategies for offering need-based staff development programmes to develop high level of professionalism and inculcate requisite values among technical teachers form the client systems.
9.	Vocational Education and Entrepreneurship Development (DVEED)	To strive to prepare world class leader for Vocational Education and Entrepreneurship Development through synergic partnership with Industry, academia and International collaboration.



2. GOVERNANCE, ORGANIZATIONAL STRUCTURE AND WORKING PHILOSOPHY

2.1. Governance and Organizational Structure

The Institute is an autonomous organization, run by the “National Institute of Technical Teachers’ Training and Research, Bhopal Society” and is registered with Madhya Pradesh Society’s Registration Act No. 44, 1973. The Board of Governors manages the Institute and is responsible for the general supervision, direction and control of the business of the Institute. The Board of Governors has representation from different stakeholders like technical education system, industry, society and the government. The Chairman of the Board of Governors is nominated by the Government of India for a period of five years. The Director of the Institute is the Chief Executive and also ex-officio Secretary of the Society and the Board of Governors. The affairs of the Institute are carried out as per the Memorandum of Association and Rules and Regulations of the NITTTR Bhopal Society.

The Union government has set up a council headed by the HRD Minister for better coordination among the four units of the National Institute of Technical Teachers’ Training and Research in October 2013. The Council shall be chaired by the HRD Minister with chairman and directors of the four NITTTRs and other academicians as members. The Council has been envisaged as an advisory body to the Central government on matters relating to central policies, administration, development of plans and rules, curriculum and institutional resources for the NITTTRs.

The working through this organizational structure (Figure:2) is based on task force and project team-based operational structure (Figure:1). The structure is responsive and flexible enough to meet various changing demands of the clients and to maintain dynamism within itself for its growth and development. It is sensitive to the needs of the technical education system, technological developments in the industries and socio-economic development of the society.

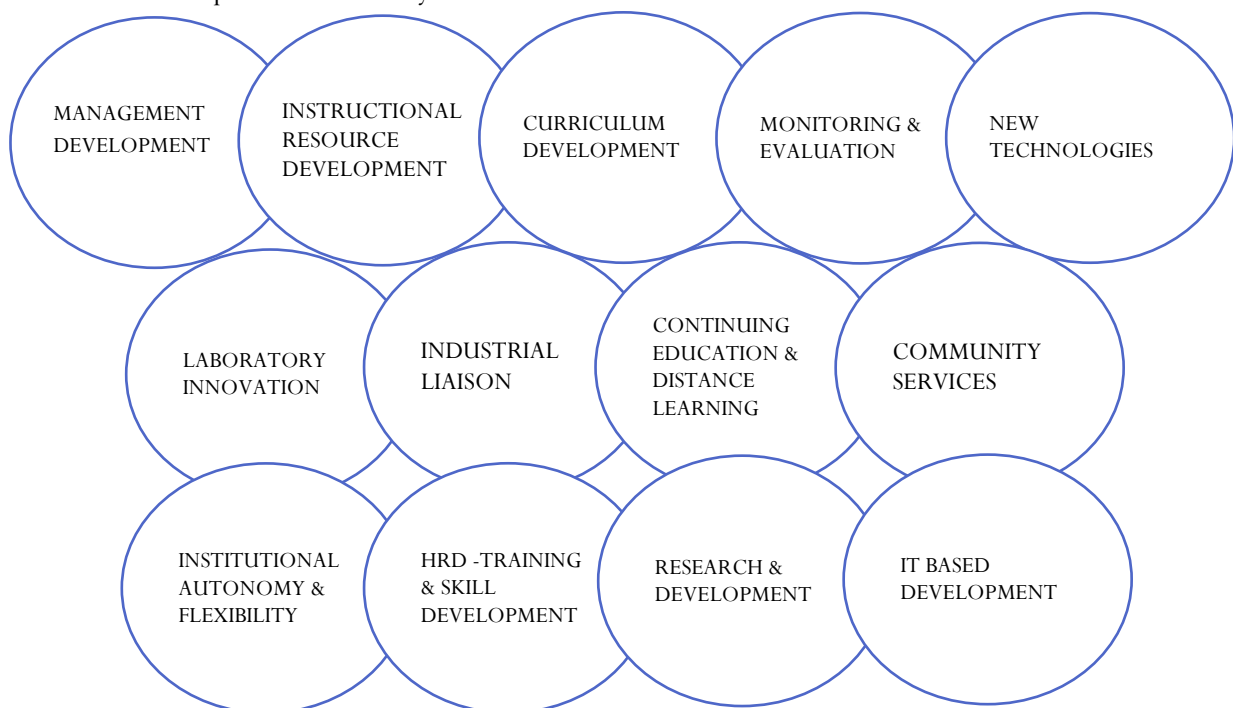


FIGURE 1: OPERATIONAL STRUCTURE

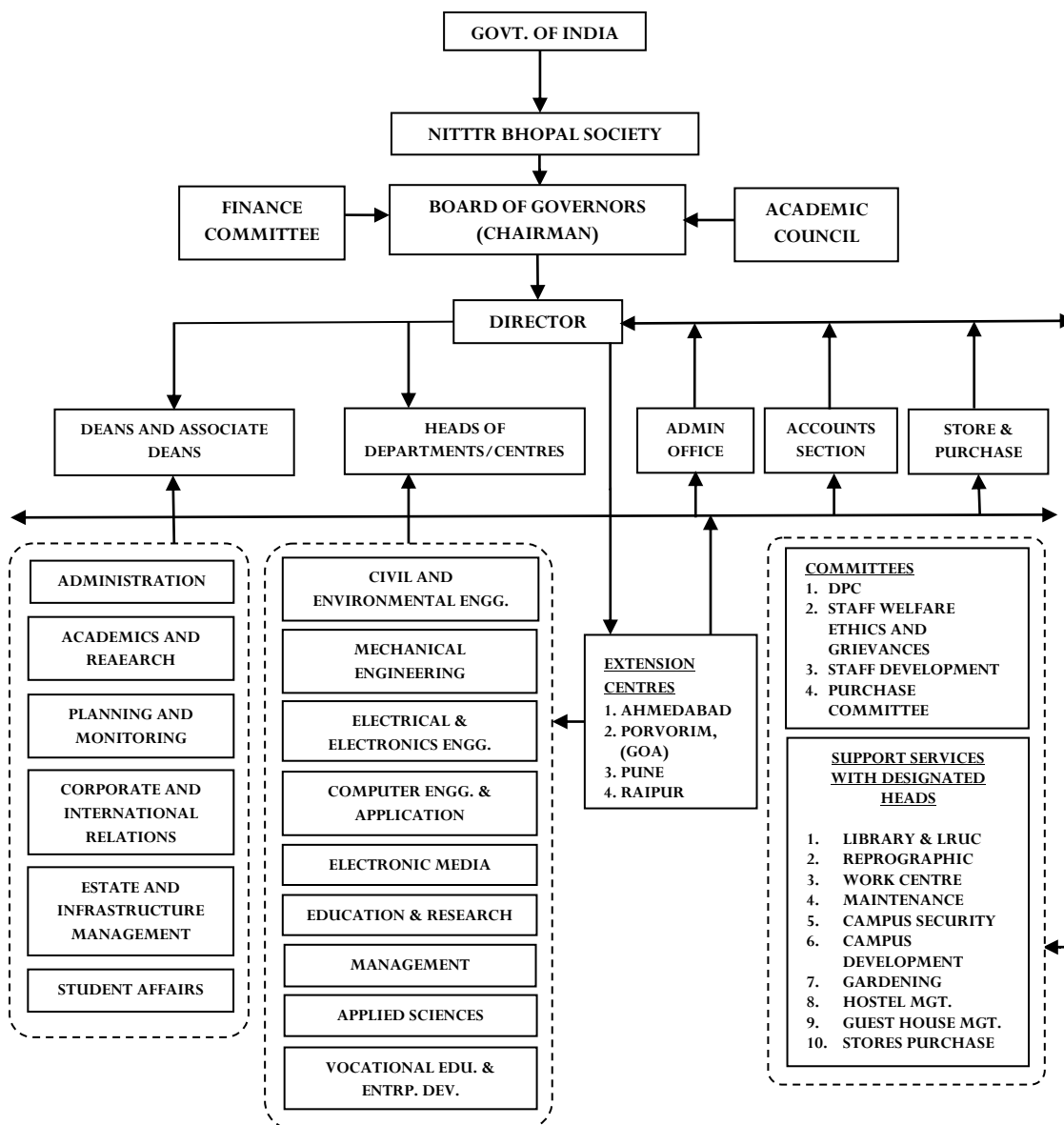


FIGURE 2: ORGANISATIONAL STRUCTURE

2.2. Human Resource (Administration)

The category-wise posts sanctioned and vacant, as on 31.3.2018 are as follows: -

Sl.No.	Category	Sanctioned			Filled	Vacant
		Teaching/ Academic	Non-teaching/ Non-Academic	Total		
1.	Director	01	-	01	01	00
2.	Faculty	60	-	60	46	14
3.	Group 'A'	12	03	15	10	05
4.	Group 'B'	16	10	26	22	04
5.	Group 'C'	42	133	175	152	23
	Total	131	146	277	231	46

3. MAJOR THRUST AREAS

It has been emphasised by earlier review committee that NITTTR essentially has a change agent role to implant innovations and reforms in the client systems through the supporting roles of research, training, development, dissemination & facilitation. The committee viewed that the experience & expertise available with NITTTR shall be made available to entire gamut of technical, vocational education and management education. The institute has proactively demonstrated its capacity and capability to improve quality of technical education system in the country more so in the western region. It has continually responded to the needs and challenges, as a result of expansion of technical education. In order to promote excellence in technical education some of the significant thrust areas on which institute has continued to invest its energy and efforts include:

- Human Resources Development through professional education and training of teachers and staff using different modes including ICT based training;
- Development of innovative and flexible outcome-based curricula;
- Development of quality instructional and learning resources;
- Support to improve quality of informal vocational education & training and community services;
- Promoting research & development in technical education & technology areas;
- Strengthening networking with industry, field agencies & institutions; and
- Institute's capacity building through infrastructure development & strengthening delivery mechanisms.

3.1. Human Resources Development

Human resources development is done by providing professional education and training to different target groups through long term & short-term programmes and project-based interventions.

Long-term programmes:

Long-Term Programmes offered at post graduate level are different in approach and style from the regular PG engineering degree courses and address to the complex needs of participants. The institute continues to offer five Masters Programmes (M. Tech. / M. E.) on self-financing mode to enhance its outreach and provide quality professionals to industry and academia. The Masters Programme in Computer Technology and Applications, Construction Technology & Management, Structural Engineering and Advanced Production Systems are offered in affiliation with Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV) Bhopal and the Master of Business Administration (MBA) in affiliation with Barkatullah University (BU), Bhopal.

In addition to offering M. Tech. Ed. under the 'Faculty of Technical Education' at BU, Bhopal, the institute is a Research Centre of BU for Ph.D. in Technical Education and that of RGPV for Ph. D. in Engineering and Technology disciplines. Many faculty members are also registered supervisors with BU, Bhopal, RGPV, Bhopal, Maulana Azad National Institute of Technology, Bhopal, and various universities and institutions of repute in India and abroad.

Short-term programmes:

Annual Calendar of activities indicating short term training programmes and workshop are planned and designed as per the requirements of technical and technician education system to meet the needs of teachers and technical supporting staff at different levels.

Need based training & development programmes are also designed & offered for personnel of industries and field agencies. The programmes are offered in wide variety of areas such as domain specific content updating & enrichment, interdisciplinary areas, induction training programmes, core teaching skills, education technology, institutional development & management, researches in technical and professional education, emerging instructional systems, instructional materials development, video production, multimedia and animation development, laboratory experimentation and innovations, computer education, industry-institute-interaction, community development and training of persons with disability, in contact and in ICT mode. The programmes are conducted not only for the client states of western region but also for other states, and institutions as per demands.

3.2. Curriculum Development

Curriculum development in emerging & diversified areas of engineering & technology and revision of existing programmes is a continuous process, in order to be responsive to market needs of technical manpower. NITTTR, Bhopal has been rendering assistance to its clients in the Western Region and other parts of India in training faculty in the scientific way of undertaking curriculum development in different ways by identifying curricular needs, developing curriculum programme structures, curriculum presentation and in delivery approaches. Developing curricula is the joint effort and responsibility of NITTTR, Bhopal and client system ensuring training-cum-development workshops with teachers at all stages of development. The most recent one has been the state level outcome-based curriculum re-designing projects - one for MSBTE, Mumbai and another for CSVTU, Bhilai. The institute is developing “Outcome Based Curriculum” for Diploma Programmes of 18 disciplines for Maharashtra State Board of Technical Education (MSBTE) using participative approach. Curricula of 90 courses were developed during 2017-18. Similarly, curriculum redesign project was undertaken for Chhattisgarh Swami Vivekanand Technical University (CSVTU). Curricula of 123 courses for Diploma Programmes of 15 disciplines were developed.

3.3. Learning Resource Development

Learning Resources (LRs) Development is one of the major activities of the NITTTR, Bhopal. Learning resource requirement for technical education at appropriate level has not yet been fully met even in respect of use of conventional instructional technologies. With the introduction of numerous new technology programmes and acute shortage of good teachers in the polytechnics and engineering colleges, the need for such material is increasingly felt. This demand of quality instructional material can be met by preparing video lectures; computer-based learning resources, journals, books monographs and self-learning modules. The institute has intensified development of learning and instructional resources in wide variety of educational technology, teaching learning areas & in domain specific content areas. It is working continuously with professionals to meet requirements of institutions, for preparation and development of instructional materials. A total of 60 video programmes, lectures and technical topic based 4 e-contents were produced. Experts from field, industries and institutions of higher learning provided rich input to develop useful instructional resources. The institute has undertaken project on development of Massive Open Online courses on 13 topics for SWAYAM platform. This is the project funded by MHRD to all the

NITTTRs. Each NITTTR is producing MOOCs on pre-decided topics related to Teacher Education. NITTTR, Bhopal produced 13 introductory videos and 31 MOOCs related videos during 2017-18.

3.4. Strengthening networking with industry, field agencies & institutions

The institute continues to strengthen its networking relationships & develop new linkages for collaborative activities, training & consultancy services with agencies like CPSC, Manila, other NITTTRs and different organisations, institutions and field agencies. Some of the field agencies & organisations for which NITTTR have been engaged in providing its services & products include Department of Science & Technology, M.P. Urban Administration & Development Department, MP Council of Science & Technology, and industries in and around Bhopal. For MPUADD engineers & officials, number of demand-driven training programmes are conducted by the Institute.

3.5. Research and Development

NITTTR, Bhopal provides active research & development support in respect of technical education at national and state levels. The development activities are based on research or survey and are used for improving systems and methodology adopted by the states. Research and development activities are undertaken and promoted through master's programme in engineering & technology and Ph.D. Programmes in various disciplines related to technical education, engineering & technology, science and management,

3.6. Research Journal

In order to expand the outreach of the institute in terms of research among the technical education system, the institute continues to publish a journal named 'Journal of Engineering, Science & Management Education'. The Journal has gathered large support in terms of quality research papers and wider participation of eminent scholars and research professionals in promoting the quality of research papers in last five years.

3.7. Community Development & Training

The institute is implementing the scheme of "Community Development through Polytechnics" in the region, for "a sub-mission on Polytechnics under the Coordinated Action for Skill Development". The institute is supporting community development through polytechnic scheme of Government of India through 97 Community Polytechnics in the western region. During 2017-18, a total of 29,089 persons were trained in different trades by the Polytechnics under CDTP Scheme and a total of 486 persons were trained by the Polytechnics under PWD Scheme. The institute conducted CDTP workshops for polytechnics of M.P., Maharashtra, Gujarat and Goa states for planning and monitoring of the scheme. The institute also supported fourteen polytechnics in implementing the scheme of Persons with Disability (PWD) of Govt. of India. NITTTR conducted 8 programmes under CDTP and PWD schemes and trained 178 officials.

4. DEPARTMENTS, SUPPORT FACILITIES AND EXTENSION CENTRES

NITTTTR, Bhopal is situated on the picturesque Shamla Hills providing a panoramic view of the city. The area of the entire campus is 36 Acre/ 145739.77 SQ.M. The institution has nine departments and other facilities supporting it for various academic, administrative and social functions.

4.1. Department of Applied Sciences (DAS)

Department of Applied Sciences continues to provide training & development services to teachers and staff of technical Institutions. The department supports and encourages research activities in interdisciplinary areas to promote the culture of research. The basic purpose of science teaching is to develop concepts and principles to apply them in the context of engineering, technology & pharmacy disciplines. The department is also involved in study of various aspects of science teaching and learning in technical education to make it easy and interesting.

The department has following facilities to support training, research and development activities:

- Applied Physics Research Laboratory
- Computer Software Laboratory

4.2. Department of Civil and Environmental Engineering (DCEE)

The department provides academic leadership in the area of education and training, research and development for improvement and innovations in technical education and specifically in civil and environmental engineering. It also actively collaborates with construction industry, service sector organizations and community for education, training and development of their manpower including in selected HRD areas. The department also integrates “Environmental Education & Management System” with Technical Education, Industry and Community for Sustainable Development.

The department has following facilities to support training, research, development and consultancy activities:

- Geotechnical Laboratory
- Construction Technology Laboratory
- Computer Software Laboratory

4.3. Department of Computer Engineering & Applications (DCEA)

The Department of Computer Engineering and Applications (DCEA) offers content updating courses in existing and emerging technology areas through long and short-term duration programmes for technical education personnel through innovative need-based staff development programs and other related areas for effective curriculum implementation. The department also undertakes various activities such as developing curricula and assessment scheme, research activities in the area of Computer Engineering and Applications.

The department also manages and administers the institution level network infrastructure comprising of layer-3 and layer-2 high performance switches, which is based on fibre optics backbone. The internet connectivity is available round the clock. Currently Internet facility is provided with 1Gbps speed through National Knowledge Network (NKN) project of Government of India. The Institute’s network management system and data centre are in the department.

In addition to that there are four major labs dedicated to students, participants and researchers. Each lab is well equipped with latest configured PCs and software. Major Laboratories in the department are;

- PC Laboratory;
- Web Engineering Laboratory;
- Research & Development Laboratory;
- Image Processing Laboratory;

4.4. Department of Education & Research (DE&R)

The Department of Education & Research (DE&R) has been making major contributions in teacher education and training for over 50 years. It has an excellent reputation for early teacher's professional development, education research, and for its Masters and doctoral programmes. It is committed to a vision of the transformative educational environment by bringing the latest advances in the teacher preparation and using ICT technology in the field of engineering education. Its flagship Induction Training programme provides an excellent opportunity for the capacity building of future teacher educators.

The Department lays emphasis on Education Research, Teacher Education, Professional Communication, Value Education, Guidance and Counselling. The Ph.D. programme is offered in the areas of Technical Education and allied disciplines promoting research from an interdisciplinary perspective. DE&R is committed to reach out to polytechnics, engineering colleges, nationally and internationally to transform teaching learning in the technical education system. The following facilities are available in the department to support training, research and development activities:

- Computer workstations with intranet and web-based T-L system facilities.
- Language laboratory

4.5. Department of Electrical and Electronics Engineering (DEEE)

The department of Electrical and Electronics Engineering provides quality need-based training in contemporary and emerging areas and development of demand driven and innovative instructional resources. The department designs and conducts online-cum-contact mode courses in technology areas and subject matter updating programmes related to various areas of electrical & electronics engineering. It also helps technical education institutions in developing curricula in new/emerging areas of electrical & electronics engineering for Under-Graduate and Diploma Programmes.

The department has following facilities to support training, research and development activities:

- Power Systems Laboratory
- Electrical Machines and drives Laboratory
- Power Electronics Laboratory
- Computer Software Laboratory I, II, III
- Renewable energy Lab

4.6. Department of Electronic Media (DEM)

The Department of Electronic Media provides training services and undertakes development of electronic learning resources like full HD video lectures of institute faculty, eminent teachers & professionals, video programmes covering industrial & technological activities reflecting curricular requirements, e-content & multimedia development for use in training, teaching and learning. It has rich infrastructure to provide

training & education in specific areas of video production, animation, media development & to offer research support. The department has taken up major role in the production of video presentations for 13 MOOCs for SWAYAM platform. All faculty members of the institute are involved in this project.

The department is equipped with following facilities:

- Video production studio with full High Definition cameras, vision mixing, audio mixing, production equipment and virtual background set system.
- Outdoor shooting and production unit.
- Non-linear editing systems.
- Graphic, animation design and development setup.
- Audio production and editing setup.
- State-of-the-art animation lab equipped with computer systems with media related software, multimedia projector, Interactive white board, Interactive panels, and media preview facility.
- Photography and visual editing setup.

4.7. Department of Management (DM)

The Department of Management is committed towards setting the standards of excellence in management education, training and research. It also offers masters' level educational programmes (MBA) and doctoral research (PhD). The commitment is management of quality of technical education through customized need-based Management Development Programmes (MDP) designed for educational institutions, government/field agencies and industry. MBA programme has been launched in order to reflect upon the needs of today's global businesses to enable the students to confront positively, the upcoming challenges of corporate world through constantly upgrading the competitive advantage. The department is also undertaking managerial skill development programmes for industries and various government departments. The department has advance computer laboratory to support training, research and development activities.

4.8. Department of Mechanical Engineering (DME)

The department provides academic leadership in content updating courses in existing and emerging technology areas through long and short-term duration programmes and assists the client institutions in modernization and removal of obsolescence of physical resources. The department provides required support to various projects and activities including those related to curriculum development, teacher training and preparation of instructional materials, laboratory innovations and student evaluation in the area of Mechanical engineering and allied disciplines. The department has following facilities to support training, research and development activities.

- Computer Aided Design & Simulation Lab
- Computer Aided Process Planning Lab
- CNC and advance manufacturing Lab
- Mechatronics Lab
- General Mechanical Engineering Lab
- Mechanical Engineering Work-centre is equipped with all necessary gadgets and machines.
- Model Room

4.9. Department of Vocational Education & Entrepreneurship Development (DVEED)

The department of Vocational Education and Entrepreneurship Development is created in view of thrust at National level in the area of vocational education and entrepreneurial development. The department

undertakes various activities such as organizing programmes, developing curricula and assessment scheme, creating database and undertaking/conducting research activities in the area of Vocational Education and Entrepreneurship Development.

The Department also develops print & non-print material for Vocational Education and Entrepreneurship Development, create database for training need assessment and conduct researches in area of Curriculum Development, Evaluation, and Vocational Education & Entrepreneurship Development.

The Teaching Learning Centre National Project under Madan Mohan Malviya National Mission on Teacher and Teaching was awarded to NITTTR, Bhopal in January 2018 funded by MHRD. For this project Advisory body was formed comprising of members from NSDC, national level members from CII and representatives from MHRD.

4.10. Extension Centres at Pune, Ahmedabad, Raipur & Alto Porvorim (GOA)

For the Effective implementation of all the programmes and projects in the client states, NITTTR has established four extension centres in the respective states. These extension centres are located at Ahmedabad (Gujarat); Pune (Maharashtra), Raipur (Chhattisgarh) and Alto Porvorim (Goa).

The NITTTR Extension Centres were established to fulfil the following objectives:

- To liaise with the state officials concerned with Technical & Vocational Education Systems, Commerce and Industry.
- To establish close functional relationship with the Principals and faculty members of Engineering Colleges, Polytechnics and Vocational Institutes.
- To facilitate HRD activities for the personnel of the technical institutions.
- To encourage and assist autonomous institutes to become Centres of Excellence.
- To supplement the innovative thrusts, educational reforms, programmes and projects initiated by the parent institute (NITTTR) to the best advantages of the client states.

4.11. Support Facilities, Centres and Sections at Bhopal Campus

Administrative Block

The Chamber of the Director, Administrative & Accounts Sections, a Committee Room, a well-equipped classroom, Seminar Hall, Lecture Hall and Reprographic Centre are housed in building block 'A'.

Departments

Each department has been allocated independent floors space to facilitate their activities.

Chandrakant Hostel

This hostel has 100 single seated rooms to accommodate male teacher trainees sponsored by technical institutions for participating in short term and long-term programmes.

Visvesvaraya Guest House

This Guest House has the capacity to accommodate more than 80 participants.

Saran Guest House

The guest house is located within the premises and has a capacity of accommodating about 50 participants.

Auditorium

The Institute has an impressive Rajeev Gandhi auditorium, which has the capacity to accommodate 220 persons and is used for seminars, workshop and other functions. This auditorium is furnished with accessories and air-conditioning systems. Mani Auditorium with 110 persons seating capacity was developed to facilitate academic activities with large gatherings.

Medical Centre

A Medical Centre with enhanced facility is established in the campus. The medical facilities include blood circulation machine, sodalities machine, weight reducing belt, acupressure health care machine, Accu-life machine and treadmill and exerciser. Participants, faculty, staff and their family members frequently use these machines. Health checks Camps are organized on regular basis for employees.

Programme Organization Cell

The programme Organization Cell supports the services during conduct of programme and maintains data about Short-term training/conferences and workshops, etc. The activities of the cell are:

- i. Registration of participants
- ii. Providing resource support
- iii. Preparation of certificates
- iv. Maintain records of registration in different programmes.
- v. Arrange logistics during inaugural and valedictory, if requested.
- vi. Record keeping and communicate data for further use.

Canteen and Mess Facility

To support food arrangements for the students, participants and staff a canteen & mess facility has been created in the institute and it takes care of supply of material for the participants and staff.

Support Services

The institute manages its Horticulture, Security and Cleaning services through the provisions made for the purpose. The service providers as per terms of contract agreement offer these services.

Maintenance of Electrical, Electronic, Civil and Mechanical Infrastructure

The institute manages regular maintenance of its office and residential campus by its own employees.

4.12. Library & Learning Resources at Bhopal Campus

In addition to a well-furnished reading room, library has a Learning Resource Centre with facilities for self-learning. The Table 4-1 shows the augmented learning resources in 2017-18.

TABLE 4-1: INSTITUTE LIBRARY LEARNING RESOURCES IN THE YEAR 2017-18

S. No.	Item	Total Available in Numbers	Number added during 2017-18
1.	Books	42214	250
2.	Books in Hindi	8313	29
3.	Educational CDs/DVDs	855	-
4.	Bounded volumes of periodicals	1550	-
5.	NPTEL Resources	Provided by NPTEL	-
6.	E-Journals: Engineering Technology, IT &	Database provided by	-

S. No.	Item	Total Available in Numbers	Number added during 2017-18
	Science (E-ShodhSindhu)	E-ShodhSindhu	
7.	E-books	Springer e-books (700)	-
8.	Membership of Swami Vivekananda Library in Bhopal	Limited cards	-

Magazines/Periodicals are available in the library on both subscription and exchange basis. The institute has updated its library with new arrivals in all the subject areas. International journals are also subscribed to provide learners a better perspective. Facilities to access e-journals acquired through E-ShodhSindhu Consortia is also available. The facility to view resources acquired through National Programme on Technology Enhanced Learning (NPTEL) has also been provided in the library, which facilitates viewing of web resources and videos on different technical and engineering courses. Other resources like hand-outs and publications developed in institute are also available.

E-Journals & Intranet Learning Resources

The institute became a member of E-ShodhSindhu consortia to gain access to large number of e-journals. The institute library and Learning Resources Centre is fully equipped with e-journals and intranet learning resources in addition to existing resources. The Table 4.2 shows list of e-journals and web-based resources available and used in the library.

TABLE 4-2: E-SHODHSINDHU JOURNALS AND WEB LINKS

Sl.No.	Type of resources	Web links
1.	ASCE	https://ascelibrary.org/journals
2.	ASME	http://asmedigitalcollection.asme.org/
3.	Economic & Political Weekly	http://www.epw.in
4.	Institute for Studies in Industrial Development	http://isid.org.in/home.html
5.	J-Gate	http://jgateplus.com/
6.	Oxford University Press	https://academic.oup.com/journals/
7.	SpringerLink 1700 Journals	https://link.springer.com/
8.	Nature	http://www.nature.com/index.html
9.	Web of Science	http://apps.webofknowledge.com
10.	World ebook Library	http://community.worldlibrary.in
11.	South Asia Archive	http://www.southasiaarchive.com
E-resources subscribed by institute		
12.	Ebscohost: Management & Education	https://search.ebscohost.com
13.	IET Digital Library	http://digital-library.theiet.org
14.	Access Engineering	https://www.accessengineeringlibrary.com
15.	BIS Codes	https://standards.bsb.co.in/home.aspx

5. PERFORMANCE OUTLAY & PROJECTED OUTCOMES

The institute's performance in various academic and other related activities is presented in this chapter. The summary of the performance is given in the following table. The chapter provides details of short term and long-term programmes conducted during this year. It also provides research papers, conferences, workshops, video production, learning resources development, staff development and efforts made by the institute for the promotion of Rajbhasha.

5.1. The Performance Outlay & Outcomes in the year 2017-18

S. No.	Name of the Scheme/ Programme	Objectives/ Outcomes	Outlay 2017-18*			Quantifiable deliverables / Physical outputs	Projected Outcomes	Process/ Timeline	Remarks / Risk Factors			
1	2	3	4			5	6	7	8			
			Nonplan Budget 4 (i)	Plan Budget 4 (ii)	CEB R							
1)	NITTTR Bhopal		2934.21 Lacs	2382.67 Lacs								
2)		Education & Training							Number of Students (LT) Number of Programmes (ST) No. of Participants -	75 250 4000	One year 2017-18 One year 2017-18 One year 2017-18	
3)		Curriculum Development							Number of Curricula	200	One year 2017-18	
4)		Instructional Resource Development							Number of Videos Number of e-content	70 30	One year 2017-18	
5)		Research & Development							Number of Research studies	100	One year 2017-18	
6)		Consultancy							No. of projects	05	One year 2017-18	
7)		Publications							Number of research Papers No. of Journals	100 One	One year 2017-18 (Three issues)	
8)		Infrastructure Development							Amount in Rs. (Construction + Equipment)		One year 2017-18	

* Revised Estimates (RE) 2017-18

REVIEW OF PAST PERFORMANCES

S. No	Name of the Scheme/ Programme	Objective/ Outcome	Quantifiable/ Deliverables/ Physical Outputs		Achievements up to (31.03.2018)
1.	National Institute of Technical Teachers Training & Research (NITTTRs), Bhopal	Education & Training	• Number of students (Long term programmes)	75	15
• Number of programmes			250	224	
• Number of students (Short term programmes)			} 4000	5926	
• Induction Training Programmes				---	
• ICT mode short term programmes				---	
• Number students				---	
2.	Curriculum Development	Number (MSBTE, Mumbai)	200 Courses	18 Programmes -90 Courses	
Number (CSVТУ, Bhilai)		15 Programmes - 123 Courses			
3.	Instructional Resource Development	Number of Videos	70	60	
Number of e-content		30	04		
4.	Research & Development	No. of Research studies	100	145	
5.	Consultancy	No. of projects	05	06	
6.	Publications	No. of research papers	100	111	
		Journal	01	01 (Three issues)	

5.2. Reform, Measure & Policy Initiatives

S. No.	Aims & Objectives of new Mandate / Scope of NITTTR	The status contributing in furthering Aims & Objectives
1.	Offer course/ programmes for technical and vocational teachers to suit overseas demands especially ASEAN and SAARC countries.	<ul style="list-style-type: none"> ➤ Offering a number of relevant Training Programmes in a variety of modes such as contact mode, distance mode, on-line and mixed mode. Programmes under the "TCS" scheme of Government of India are also conducted. ➤ Establish International House
2.	Collaborate with community development agencies and industry in organizing continuing and non-formal vocational education programmes and providing extension and consultancy services.	<ul style="list-style-type: none"> ➤ Help intensify collaboration with community, field agencies and industry for furthering continuing education and vocational education. ➤ Contribute significantly in employment generation and alleviation of poverty through the social change instrument of Technology Transfer.
3.	Undertake consultancy and extension work for industry, technical institutions and organizations.	<ul style="list-style-type: none"> ➤ Intensify collaboration with community, field agencies and industry for furthering consultancy and developmental projects from the client systems. ➤ Facilitate in increasing the Internal Revenue Generation by undertaking projects & continuing education programmes for industries and field agencies.
4.	Serve the states better; establish extension centers in different states.	<ul style="list-style-type: none"> ➤ Establish the new extension centres in other regions and strengthen the existing extension centres to fulfill the changing requirements
5.	Cooperate with educational or other institutions in any part of the world having objects wholly or partly similar to those of the institute by exchange of teachers and scholars and generally in such manner as may be conducive to their common objects.	<ul style="list-style-type: none"> ➤ Intensify collaboration with international organizations like: CPSC, Manila and other institutes. Make provisions for faculty exchange to activate these centers to fulfill the common objects. ➤ Close collaboration with UNESCO-UNEVOC

6. Significant Achievements

Throughout the year 2017-18, NITTTR, Bhopal has organized various activities apart from the regular education and training programmes.

- During the period 224 programmes were offered in which a total of 5926 participant teachers of various engineering colleges and polytechnics participated.
- The institute has taken up the Curriculum Redesign Project for Maharashtra State Board of Technical Education (MSBTE), Mumbai for redesign of 18 diploma programmes and also have for the Chhattisgarh State with Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bilai for redesign of 15 diploma programme. Curriculum for total 90 courses have been developed for MSBTE, Mumbai and curriculum for total 123 courses up to 3rd semester have been developed for CSVTU, Bilai.
- 111 research papers were published/ presented in national/ international journals/ conferences by the faculty of the institute. Under the scheme of CPDA Twentynine faculty members were nominated for participation in national and international conferences. During this academic year 10 candidates were awarded Ph.D. Degree, 08 have submitted their thesis and 32 Ph.D. candidates are pursuing their research work, 85 M. Tech. Dissertations were completed and 10 are in progress
- The Rajbhasha Karyanvayan Samiti conducted various Rajbhasha activities within the institute and also participated in the Rajbhasha programmes conducted in other central government institutions. More than 55 staff members were nominated to participate in these activities during the period.

6.1. Education and Training

A. Ph. D. & M. Tech. Dissertations

The institute offers a wide platform for research in technical education system, management, sciences and pharmacy through its Ph.D. programmes. During this academic year 10 candidates were awarded Ph.D. Degree, 08 have submitted their thesis and 32 Ph.D. candidates are pursuing their research work (Table 6-1) 85 M. Tech. Dissertations were completed and 10 are in progress.

TABLE 6-1: SUPERVISION WORK FROM VARIOUS UNIVERSITIES AND INSTITUTIONS

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
1	Harleen Kaur	Study and Investigation of the seismic impact on F2 region of the Ionosphere	July 2014	Prof. P. K. Purohit	Ph. D. Awarded in Nov. 2017.
2	Divya Bhardwaj	Convergence Theorems via Various Contraction Conditions in Abstract Spaces Particularly in Cone Metric Spaces	Feb. 2012	Dr. Deepak Singh	Ph. D. Awarded in Nov. 2017
3	Bilal Ahmad Dar	Interval valued nonlinear programming problems	Nov. 2012	Dr. Deepak Singh	Ph. D. Awarded in Sept. 2017
4	Varsha Chauhan	Results on fixed point theorems in ordered metric spaces and related abstract spaces	Oct. 2013	Dr. Deepak Singh	Ph. D. Awarded in Jan. 2018

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
5	Tripti Singh	Export Potential of Select Medicinal Plants of Madhya Pradesh- A Study of Ten Medicinal Plants (Value Chain)	2013	Dr. Parag Dubey, BU Bhopal	Ph. D. Awarded
6	Satish Yewale	Technology Options for Mitigation of Energy Emissions in Indian Residential and Transport Sectors	2014	Dr. M. Kapshe Dr. A. Deshpande MANIT, Bhopal	Ph. D. Awarded
7	A. L. Singh	An Impact of Retail Sector Training in NCR Region Vocational Education & Training	2015	Prof. Ashok Gaba, IGNOU, Delhi, Prof. R. G. Chouksey	Ph. D. awarded
8	Hemant Gour	Effectiveness of Educational Television Programs in Terms of Village Community Development.	2010	Dr. Prabhakar Singh, Devi Ahilya Univ., Indore.	Ph.D. awarded
9	Ashok Kumar Gupta	Spiral bevel gear design and development -Generation and simulation of meshing and Tooth contact analysis (TCA) for improved Performance	2013	Dr. Vandana Somkuwar AISECT Univ. Bhopal	Ph.D. Awarded
10	Piyush Kumar Soni	Optimizing Implementation of Statistical Process Control Tools in Conjunction with Design of Experiments As applied in Manufacturing for Process Improvement in Industries	2013	Dr. Vandana Somkuwar AISECT Univ. Bhopal	Ph.D. Awarded
11	Deepak Rai	Study of Factors of Social Media in Reference to Success and Un-success of Political Parties	2014	Dr. Prabhakar Singh, Co-guide MGCG Univ, Citrakoot, Satna.	Ph.D. Submitted
12	Roshni Atulkar	Study of Ionospheric variability using Satellite and ground-based observation	July 2014	Prof. P.K. Purohit	Ph. D. Submitted in Aug. 2017
13	Ramakant Sharma	Some new results in fuzzy metric spaces and related abstract spaces of fixed-point theorems	July 2010	Dr. Deepak Singh	Ph. D. Submitted in July 2017
14	Vishal Joshi	Some study of fixed-point theorems in G - metric spaces and related abstract spaces.	July 2014	Dr. Deepak Singh	Ph. D. Submitted in Aug. 2017
15	O. P. Chauhan	Study of some fixed-point results in partially ordered and cone metric spaces with related abstract spaces.	July 2014	Dr. Deepak Singh	Ph. D. Submitted in Dec. 2017
16	Anil Badal	Study of fixed-point theorems using various contraction mappings in uniform space and related abstract spaces.	Feb. 2012	Dr. Deepak Singh	Ph. D. Submitted in Dec. 2017

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
17	Hema Virendra S. Soitkar	A critical study of aspirations and problems faced by Polytechnic Girl students of Nagpur region	2011	B L Gupta BU, Bhopal	Ph. D. Submitted
18	Farha Haneef	An Intelligent Data Mining Technique for Intrusion Detection	2013	Dr. Shailendra Singh, BU, Bpl	Ph. D. Submitted
19	Shivangi Bhardwaj	Geomagnetic and ionospheric response to solar eruptive phenomenon	July 2014	Prof. P.K. Purohit	Ph. D. Pursuing
20	Rafi Ahmed	Investigation of Ionospheric response to high energetic solar transients using Ionosonde and GPS observations	Dec. 2016	Prof. P. K. Purohit	Ph. D. Pursuing
21	Bhupendra Malviya	Diagnostic study of physical process affecting Sun- Earth environment using ground and space borne techniques.	Dec. 2016	Prof. P.K. Purohit	Ph. D. Pursuing
22	Mahesh Parwani	Investigation of short- and long-term Space Weather effects on Earths Ionosphere by using Ground and Satellite based measurements	Dec. 2016	Prof. P.K. Purohit	Ph. D. Pursuing
23	Mudasir Younis	Some fixed-point theorems and their applications in abstract spaces	Feb. 2016	Dr. Deepak Singh	Ph. D. Pursuing
24	Pramesh Kumar	Energy pricing and bidding strategy in open restructured deregulated environment with grid connected renewable sources.	2013	Dr. S.K. Bharadwaj Dr. Ajit Dixit	Ph. D. Pursuing
25	Santosh Mishra	The Study of Customers Attitude towards Shipping Malls in Madhya Pradesh with Special reference to Experiential Marketing	2016	Dr. Parag Dubey, BU Bhopal	Ph. D. Pursuing
26	Shreya Jain	A Study on Corporate Social Responsibility: Economic & Environmental Impact of Extended Producer's Responsibility & Green Purchasing Network on Companies' CSR Activities in Bhopal, Madhya Pradesh	2016	Dr. Parag Dubey, BU Bhopal	Ph. D. Pursuing
27	Nishant Bisen	Impact of Brand on Consumer involvement in Buying of high value and low value products	2014	Dr. Parag Dubey, BU Bhopal	Ph. D. Pursuing
28	Mr. T. K. Rangari	Effectiveness of Skill Development Training Programmes Under Scheme of Community Development through Polytechnics Activities in Generating Employment Opportunities in Maharashtra State	2017	Dr. A. K. Jain/ BU Bhopal	Ph. D. Pursuing
29	Mr. V. R. Sawant	A critical study of the performance of students admitted through different modes of lateral entry in the diploma	2017	Dr. Anil Kumar Dr. A. K. Jain/ BU Bhopal	Ph. D. Pursuing

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
		engineering programme of Maharashtra State.			
30	Damodar Tiwari	Design and development of load balancing mechanism for cloud computing environment using bio inspired algorithm.	2014	Dr. Shailendra Singh, RGPV Bhopal	Ph. D. Pursuing
31	Yogdhar Pandey	Statistical Network Based Intrusion Detection System using Machine Learning Algorithms,	2011	Dr. Shailendra Singh, BU, Bhopal	Ph. D. Pursuing
32	Ravindra Gupta	An Efficient Soft Computing Model for Intrusion Detection System	2011	Dr. Shailendra Singh, BU, Bhopal	Ph. D. Pursuing
33	Prakash Narayan Hardaha	The Novel Approach for Design of User Interface for Multiple Data Streams Using the concept of Data Mashup.	2016	Dr. Shailendra Singh, BU, Bhopal	Ph. D. Pursuing
34	Sunita Gond	Novel Approaches for optimizing the usage of cloud computing resources using dynamic load balancing.	2016	Dr. Shailendra Singh, BU, Bhopal	Ph. D. Pursuing
35	Shadab Pasha	Performance Analysis of Next Generation MANET and its security Strategies.	2015	Dr. M. A. Rizvi, AISCET Univ., Bhopal	Ph. D. Pursuing
36	Rishi Kumar Sharma	Enhancing Security in Cloud Computing Using Cloud Heritage Technique	2015	Dr. R. K. Kapoor, Dr. S. S. Shrivastava, R. Tagore Univ., Raisen	Ph.D. Pursuing
37	Anurag S. D. Rai	Microgrid control using Cyber-Physical systems	-	C. S. Rajeshwari/ Rabindranath Tagore Univ.	Ph. D. Pursuing
38	Ravindra Gopal Limaye	Design and Evaluate Massive Open Online Course (MOOC) Framework in Technical Teacher's Education.	July 2017	Dr. K.J. Mathai (Co-Guide), BU, Bhopal	Ph. D. Pursuing
39	Arun Patilkar	A Correlational Study of Availability and Applicability of Mass Media in Rural areas.	2014	Dr. Prabhakar Singh, Co-guide MGCG Univ., Citrakoot, Satna.	Ph.D. Pursuing
40	D. D. Rai	A Study of Psychographic Characteristics of Consumers of Electronic Media Services	2010	Dr. Prabhakar Singh, Devi Ahilya Univ., Indore.	Ph.D. Pursuing
41	Naveen Gupta	A critical study on effectiveness of the new curriculum TBCS implemented by RGPV, Bhopal on the performance of engineering graduates.	2017	Dr. K.K. Jain BU, Bhopal	Ph.D. Pursuing

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
42	H.K. Pareek	Effectiveness of Information & Communication Technology (ICT) enabled education for improving academic performance of students of polytechnics.	2017	Dr. K.K. Jain BU, Bhopal	Ph.D. Pursuing
43	Suresh Kumar Badholiya	Experimental and Numerical evaluation of Ash Agglomeration Phenomenon in CFBC Boilers using Computational Fluid Dynamics and Genetic Algorithm	2017	Prof. Anil Kothari (Guide), Dr. Sharad K. Pradhan (Co-Guide) RGPV, Bhopal.	Ph.D. Pursuing
44	Anant Kumar Gupta	Experimental and Numerical investigations into Sculptured Surface Machining using Ball Mill	2017	Prof. R.K. Rajput (Guide), Dr. Sharad K. Pradhan (Co-Guide) RGPV	Ph.D. Pursuing
45	Chaitanya Shrivastava	Experimental and Numerical evaluation of Laser beam welding	2017	Dr. Sharad K. Pradhan (Guide) Prof. R.K. Rajput (Co-Guide) RGPV	Ph.D. Pursuing
46	Nishant Vaibhav Saxena	Numerical and Experimental Evaluation of the Available Robotic Dextrous Hands postural synergies	2017	Dr. Sharad Pradhan (Guide) Prof. R.K. Rajput (Co-Guide) RGPV	Ph.D. Pursuing
47	Vivek Khare	New Plate and Shell Theory for Functionally Graded Material	2018	Dr. Sharad Pradhan (Guide) RGPV, Bhopal.	Ph.D. Pursuing
48	Ajay Kumar Pandey	Multibody Dynamic simulation of dynamic behavior of Rail cum Road Vehicle	2018	Dr. Sharad Pradhan (Guide) RGPV, Bhopal.	Ph.D. Pursuing
49	Neeraj Nagwanshi	Pursuing course work	-	Dr Anjali Potnis/ RGPV	Ph. D. Pursuing
50	Lokesh Sadrani	Pursuing course work	-	Dr Anjali Potnis/ RGPV	Ph. D. Pursuing
51	Nitesh Singh	An Artificial neural network-based tool for static voltage security assessment using Phasor Measurement Unit	2012-14 Batch	Dr. A S Walkey/ RGPV Bhopal	MEPS Awarded
52	Rini Smita Thakur	BER and SNR Performance of NLMS Adaptive Channel Estimation Technique	2014-16 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
53	Surbhi Mishra	Design MIMO-OFDM System for Fourth Generation Wireless Communication using C-A-PTS Technique.	2014-16 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
54	Abdul Saad Khan	Noise Estimation in Coherent Optical OFDM (CO-OFDM) System with	2014-16 Batch	Mr. Sanjeet Kumar /RGPV	M. Tech DC Awarded

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
		Adaptive Equalizer Using Artificial Neural Network		Bhopal	
55	Zainab Khan	Image Haze Removal using Image Visibility Restoration (IVR) and Edge Preserving Decomposition (EPD) with Dark Channel Prior Technique	2014-16 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
56	Abhishek Gupta	Compressed Sensing Based Channel Estimation for OFDM Systems under Long Delay Channels	2014-16 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
57	Usha Shukla	Image Compression using BTC-PF Algorithm for random image size	2014-16 Batch	Dr. Anjali Potnis/RGPV	M. Tech DC Awarded
58	Himanshu Tyagi	Digitation of Historical Document using DWT	2014-16 Batch	Mr. Sanjeet Kumar/RGPV	M. Tech DC Awarded
59	Surabhi Kudeshia	An Efficient parallel pipelined Architecture for FFT using folding Technique	2014-16 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
60	Avinash Ray	Hybrid model for Image Encryption using AES, RSA, Genetic Algorithm, Affine Transform with XOR, Watermarking and Image Scrambling by Parts	2015-17 Batch	Mr. Sanjeet Kumar/RGPV Bhopal	M. Tech DC Awarded
61	Prashant Dwivedy	A Novel Approach for Image Restoration using Median Filter, Geometric Mean Filter, Midpoint Filter and PCA Based Image Fusion	2015-17 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
62	Shivangi Pandey	Panoramic Image Stitching Technique based on SIFT and SURF Algorithm	2015-17 Batch	Dr. Anjali Potnis/RGPV	M. Tech DC Awarded
63	Dimna Dinesh	Bit-Parallel Arithmetic Based FIR Filter Design using VHDL	2015-17 Batch	Mr. Sanjeet Kumar/RGPV	M. Tech DC Awarded
64	Madhunam Mishra	Wireless Transmission Monitoring System Using Software Defined Radio	2015-17 Batch	Dr. Anjali Potnis/RGPV	M. Tech DC Awarded
65	Charu Bhatnagar	Optimization of Centralized Cooperative Sensing for Cognitive Radio Networks	2015-17 Batch	Dr. Anjali Potnis/RGPV Bhopal	M. Tech DC Awarded
66	Kuldeep Narayan	Image Deblurring and Enhancement Using Wiener Filter and Fuzzy logic to Extract the License plate of Blurred and Noisy Vehicle Image	2015-17 Batch	Dr. Anjali Potnis/ RGPV Bhopal	M. Tech DC Awarded
67	Neelam Singh	Optimal Design of a linear phase low pass FIR filter using improved Particle Swarm Optimization	2015-17 Batch	Dr. Anjali Potnis/ RGPV Bhopal	M. Tech DC Awarded
68	Sunil Kumar Meena	Development of 16-Bit, 6-Channel Analog to Digital Converter Card	2015-17 Batch	Mr. Sanjeet Kumar/ RGPV	M. Tech DC Awarded
69	Uday Bhade	A Hybrid Lossy Image Compression Technique Using Singular Value Decomposition, DWT, and BTC with Median Filter	2015-17 Batch	Mr. Sanjeet Kumar/ RGPV Bhopal	M. Tech DC Awarded
70	Tara Singh	System Identification and Noise Cancellation Using NLMS & SSLMS	2015-17 Batch	Mr. Sanjeet Kumar/ RGPV	M. Tech DC Awarded

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
71	Vartika Varshney	Effectiveness of Concrete by Utilizing Industrial Wastes Blended with Recron and Admixture	2014-16 Batch	Dr. A.K. Jain/ RGPV, Bhopal	M. Tech. Awarded
72	Radha Krishna Amritraj	Analysis of Building Frames with Floating Columns and Soft Storeys under Wind Loads	2014-16 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
73	Zeesan Ahmad	Evaluation of Properties of Alkali activated slag concrete blended with polypropylene shredding and admixture	2014-16 Batch	Dr. J.P. Tegar/ RGPV, Bhopal	M. Tech. Awarded
74	Chetan Sharma	Comparative Analysis of Multi Story Buildings with Seismic and Pushover Methods	2014-16 Batch	Dr. R.K. Dixit/ RGPV, Bhopal	M. Tech. Awarded
75	Alok Goyal	Characterization of Bituminous Concrete Mix using Reclaimed Asphalt Pavement	2012-14 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
76	Ravindra Prakash Rawal	A Laboratory Assessment of Waste Concrete as Aggregate in Mix Design Concrete	2014-16 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
77	Rahul Malviya	Analysis of tall structure on sloping ground considering lateral forces as per Indian Standard.	2012-14 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
78	Poonam Singh	Use of Wheat Straw Fiber as Stabilizing Additive in Stone Matrix Asphalt Mix	2015-17 Batch	Dr. Subrat Roy/ RGPV, Bhopal	M. Tech. Awarded
79	Chandresh Kumar Jha	A Comparative Study of Pratt and Howe Trusses Based on Fully Stressed Design Method of Optimization Using STAAD.Pro'	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
80	Love Kumar	Similitude Study of Chevron Braced Frame Structure under Dynamic Loading	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
81	Priyansh Pathak	Seismic Analysis of Multistoried Reinforced Cement Concrete Frames with Floating Columns	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
82	Kshitij Dubey	Seismic Analysis of Multi-Storey RC Building with Soft Storey at Different levels with and without Shear wall	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
83	Mridula Dwivedi	A Study on Concrete Reinforced with Human Hair as A Fibre	2015-17 Batch	Dr. R.K. Dixit/ RGPV, Bhopal	M. Tech. Awarded
84	Satyendra Chouksey	'Study of the Compressive strength of Concrete using marble, granite and recycle aggregates with polypropylene fiber'	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
85	Pawan Shukla	'Investigation on The Optimal Use of Crumb Rubber, Steel Fibre And Recycle Aggregated in Concrete'	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
86	Padma Pandey	'Critical Study of Land and Water Management of Kolans Village Cluster Applying Geographic Information System (GIS) For Future Planning and Development'	2015-17 Batch	Dr. J.P. Tegar/ RGPV, Bhopal	M. Tech. Awarded
87	Hemant Choudhary	Risk and Cost Implications of Project Schedule Crashing	2015-17 Batch	Dr. Subrat Roy/ RGPV, Bhopal	M. Tech. Awarded
88	Ashutosh Sharma	Utilization of Human Hairs & Jute Fibers for Cement Concrete Paver	2013-15 Batch	Prof. M.C. Paliwal/ RGPV	M. Tech. Awarded
89	Pranav Thepe	Design of Rainwater Harvesting System of NITTTR Campus Bhopal	2015-17 Batch	Prof. M.C. Paliwal/ RGPV	M. Tech. Awarded
90	Rakshit Selot	Iterative Analysis of Distorted Plate as a Thin Shell	2015-17 Batch	Prof. M.C. Paliwal/ RGPV	M. Tech. Awarded
91	Surbhi Jain	Seismic Analysis of Soft Storeys Strengthened Using Equivalent Diagonal Struts	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
92	Mukesh Rai	Comparative Study of Behaviour of High-Rise Building Frames Using Seismic Parameters	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
93	Mohit Takhalate	Study on Stabilization of Black Cotton Soil by Using Cement Kiln Dust	2015-17 Batch	Dr. Subrat Roy/ RGPV, Bhopal	M. Tech. Awarded
94	Jitendra Kamariya	Study on Stabilization of Black Cotton Soil by Using Lime and Brick kiln Dust	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
95	Siddhant Jain	Feasibility Study on Use of Ceramic Tiles Waste as Coarse Aggregate in Paver Blocks	2015-17 Batch	Dr. Subrat Roy/ RGPV, Bhopal	M. Tech. Awarded
96	Ravi Shankar Pandit	Efficient Utilization of Structural Members	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
97	Rubeena Bee Khan	Characteristics of Black Cotton Soil Mixed with Lime & Fly Ash	2012-14 Batch	Dr. Subrat Roy/ RGPV, Bhopal	M. Tech. Awarded
98	Chandrabati Charmkar	A Study on the Properties of Concrete by Partial Replacement of Fine Aggregate with Stone Dust and Cement by Glass Powder	2013-15 Batch	Dr. A.K. Jain/ RGPV, Bhopal	M. Tech. Awarded
99	Megha Purhohit	A Critical Study on Eco- Roof and Eco Wall Concept	2014-16 Batch	Dr. Subrat Roy/ RGPV, Bhopal	M. Tech. Awarded
100	Rahul Singh	Structural Optimization of Home Roof Truss	2014-16 Batch	Prof. M.C. Paliwal/ RGPV	M. Tech. Awarded
101	Shefalee Barmate	Comparative analysis of stone masonry and RCC pagoda	2015-17 Batch	Prof. M.C. Paliwal/ RGPV	M. Tech. Awarded
102	Sonali Sharma	"Linear Interaction Analysis of Gravity Dam- Layered Soil System"	2015-17 Batch	Prof. M.C. Paliwal/ RGPV	M. Tech. Awarded
103	Parvej Akhtar	Experimental Investigation & Cost Analysis of Self Compacting Concrete by using Industrial Waste	2013-15 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
104	Priyatam Kumar	Strength Parameter by Partial replacement of sand using Copper Slag	2015-17 Batch	Prof. M.C. Paliwal/ RGPV, Bhopal	M. Tech. Awarded
105	Alka Pandey	Design a MIXNET Using EC2 For Secure Communication in Network	2015-17 Batch	Dr. M. A. Rizvi/RGPV	M. Tech Awarded
106	Himanshu Sharma	Improved Heart Disease Attack Prediction Technique Using Deep Neural Network	2015-17 Batch	Dr. M. A. Rizvi/ RGPV, Bhopal	M. Tech Awarded
107	Ifra Khan	Improved PSNR Using Proposed DWT Digital Watermarking Technique	2014-16 Batch	Dr. M. A. Rizvi/RGPV, Bhopal	M. Tech Awarded
108	Kshipra Soni	An Improved Approach of 3D Face Recognition Technique in the Presence of Facial Expression	2015-17 Batch	Dr. R. K. Kapoor/ RGPV, Bhopal	M. Tech. Awarded
109	Sunil Kumar Patel	Residual Energy based Adaptive Routing Protocol in Cluster based Wireless Sensor Network	2015-17 Batch	Dr. R. K. Kapoor/ RGPV, Bhopal	M. Tech. Awarded
110	Priya Yadav	Image Encryption and Compression using Blowfish Algorithm and Discrete Wavelet Transform	2015-17 Batch	Dr. R. K. Kapoor/ RGPV, Bhopal	M. Tech. Awarded
111	Harikrishna Tiwari	An Approach to increase the performance of delay tolerant network	2013-15 Batch	Dr. R. K. Kapoor/ RGPV, Bhopal	M. Tech. Awarded
112	Prem Kumar Soni	Optimization the behaviour of deep drawing process using finite element simulation by changing different die angle and different friction valve	2014	Dr. Vandana Somkuwar	M. E. Awarded
113	Umesh Yaduwanshee	Modelling and Analysis of leaf spring by using composite material	2014	Dr. Vandana Somkuwar	M. E. Awarded
114	Dhiraj Kumar Singh	Spin Test of Flywheel with Layered Composites Three-Dimensional Model to determine Shear Stresses with Different Hub Angle	2014	Dr. Vandana Somkuwar	M. E. Awarded
115	Shashi Kant	Thermal Analysis of Wire Electrical Discharge Machining	2014	Dr. Vandana Somkuwar	M. E. Awarded
116	Rishabh Sood	Design and development of low-cost open source 3D printer and its single response optimization using PLA through DOE optimizing tools.	2013	Dr. Vandana Somkuwar, Dr. Sharad Pradhan	M. E. Awarded
117	Sudeep Kumar Jain	Effect of Material Deposition Orientation on the 3D Printed Component Strength	2015	Dr. Vandana Somkuwar	M. E. Awarded
118	Rahul Singh	An experimental study of barreling and fem-based modelling in cold upsetting of aluminium	2015	Dr. Vandana Somkuwar	M. E. Awarded
119	Gauvrav Kumar	Computational fluid dynamics investigation of shell and tube heat	2015	Dr. Vandana Somkuwar	M. E. Awarded

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
		exchanger with different types of baffles			
120	Aditya Shukla	Analysis of fracture on turbo expander blade tip to determine the effect of stress intensity factor by using finite element method	2015	Dr. Vandana Somkuwar	M. E. Awarded
121	Shivam Singh	Finite Element Analysis of cylinder Using Composite Material	2014	Dr. K. K. Jain	M. E. Awarded
122	Sunil K. Chaturvedi	Reliability evaluation of reliability parameter in a hydro power plant.	2014	Dr. K.K. Jain	M. E. Awarded
123	Akhandanand Pandey	An experimental investigation for enhance the anti-wear properties of en8 steel by using cuonano fulids	2014	Dr. K.K. Jain	M. E. Awarded
124	Varun Jain	Vibration monitoring and analysis of ball nose end mill during sculptured surface machining	2015	Dr. K.K. Jain Dr. Sharad K. Pradhan	M. E. Awarded
125	Avinash Mandarha	CFD analysis and effect of different process parameters of plate fin tube type compact heat exchanger	2014	Dr. K.K. Jain	M. E. Awarded
126	Pawan Pal	Analysis and Optimization of Abrasive flow Machining	2014	Dr. K.K. Jain, Dr.A.K. Sarathe	M. E. Awarded
127	Mukund Madhav Sharma	Optimization of Graphite Electrode Extrusion Process through Computational Fluid Dynamics Simulation	2014	Dr. Sharad K. Pradhan	M. E. Awarded
128	Mayur Verma	Experimental and Numerical investigations in CNC turning for different combinations of tool inserts and workpiece aterial	2015	Dr. Sharad K. Pradhan	M. E. Awarded
129	Punit Deshmukh	Transient thermo-physical finite element analysis of brass wire during electro discharge machining of INCOEL material	2015	Dr. Sharad K. Pradhan	M. E. Awarded
130	Amardeep Kumar	Experimental investigation and optimization using regression genetic algorithm of hard turning operation with wiper geometry insert	2015	Dr. Sharad K. Pradhan	M. E. Awarded
131	Manjeet Rani	Experimental and Simulation Studies of EBW on Ti-5Al-5V-5Mo-1Cr-1Fe Titanium Alloy	2015	Dr. Sharad K. Pradhan	M. E. Awarded
132	Siddhartha Soni	Improving crash worthiness and dynamic performance of frontal automotive body components	2015	Dr. Sharad K. Pradhan	M. E. Awarded
133	Pritam Sahare	Experimental investigation and optimization of submerged arc welding on windmill tower using genetic algorithm	2015	Dr. Sharad K. Pradhan	M. E. Awarded

S. No.	Name of the candidate	Title of the Dissertation	Year of Registration	Name of the Guide/s and University	Status as on date
134	Purushottam Kumar	A Study on Thermal Analysis of butt Joint during shielded metal arc welding	2014	Dr. A. K. Sarathe	M. E. Awarded
135	Abhinay Kumar	Comparative analysis and optimization of process parameters in machining operation using CCD and BBD over steel 1018	2015	Dr. A. K. Sarathe	M. E. Awarded
136	Khan Mohammad Arif Shabbir	Mitigation of losses and voltage improvement by using UPFC controller in power system	2013-15 Batch	Dr. A.S. Walkey & Prof. Susan S. Mathew /RGPV Bhopal	MEPS Ongoing
137	Deepak Kumar Gohe	Power System Stability and Control for Multi-Machine System Using PSO and GA	2013-15 Batch	Dr. A.S. Walkey & Prof. Susan S. Mathew /RGPV Bhopal	MEPS Ongoing
138	Santosh Kumar Chaturvedi	A study of Corporate Social Responsibility Practices for Skills Development in India	2016-18 Batch	Dr. Nishith Dubey, BU Bhopal	MBA Pursuing
139	Smita Banodia	A Study of Social Entrepreneur's Characteristics, Factors and Dimensions in India	2016-18 Batch	Dr. Nishith Dubey, BU Bhopal	MBA Pursuing
140	Monika Sharma	A Comparative Study of Performance Appraisal Practices in Retail Sector Amongst E- banking, Co-operative stores and Rural malls	2016-18 Batch	Dr. Nishith Dubey, BU Bhopal	MBA Pursuing
141	Vijay Kumar Adwani	Evolving Skill Development model for India	2016-18 Batch	Dr. Nishith Dubey, BU, Bpl	MBA Pursuing
142	Rajiv Singhai	A Critical Study-Parameters of Accreditation of Engineering Education in India	2016-18 Batch	Dr. Nishith Dubey, BU Bhopal	MBA Pursuing
143	Gurvinder Kaur Malhotra	Impact of Outbound training programs on Industrial Executives	2016-18 Batch	Dr. Nishith Dubey, BU	MBA Pursuing
144	Kunal Singh	Implement intrusion Detection System using State Preserving Extreme Learning Machine Algorithm	2016-18 Batch	Dr. K.J. Mathai/ RGPV, Bhopal	M. Tech. Pursuing
145	Vivek Kulshrestha	Study of suction behavior of semi solid using CFD	2015	Dr. Sharad K. Pradhan	M. E. Pursuing

B. Post Graduate Programmes

The Table 6-2 presents the intake and the numbers of students admitted during the year 2017-18 in the Post-Graduate Programmes.

TABLE 6-2: INTAKE AND STUDENTS ADMITTED DURING 2017-18

Sr. No.	Name of the Post-Graduate programme	Sanctioned Intake	No. admitted
1.	M. Tech. Construction Technology & Management	36	15

Sr. No.	Name of the Post-Graduate programme	Sanctioned Intake	No. admitted
2.	M. Tech. Computer Technology and Application	36	Declared Zero year
3.	M. Tech. Digital Communication	24	
4.	M. E. Structural Engineering	18	
5.	M. E. Advanced Production Systems	24	
6.	Master of Business Administration [MBA]	60	
	Total	198	15

An agreement is signed between EdCIL (INDIA) Ltd. and NITTTR Bhopal, regarding guidance and cooperation in filling up of Non - Resident Indian (NRI) and PIO (Person of Indian Origin) seats of PG programmes run by the Institute.

C. Short Term Programmes

The institute offers diverse need-based programmes to various states of the region. During the academic year 2017-18, 224 programmes were conducted for different target groups covering Polytechnics, Engineering, Pharmacy & management institutions and field organisations. The area wise and month wise details of these programmes are given in Table 6.3 and 6.4.

TABLE 6-3: PROGRAMMES CONDUCTED DURING 2017-18

S. No	Type of Programmes	No. of Programmes	No. of Participants	Participants Days	Participants Weeks
1.	Workshops/Conferences/ Seminars	12	437	1514	437
2.	Induction Training	52	1822	21339	3569
3.	Core Teaching Skills	11	279	1822	340
4.	Curriculum Development/Lab Manual Development	31	1083	5415	1083
5.	Management Development	41	763	4561	911
6.	Technical/Subject Matter	49	1060	5762	1126
7.	Computer/IT Related	20	304	1646	322
8.	Community/PWD	08	178	890	178
Total		224	5926	42949	7966

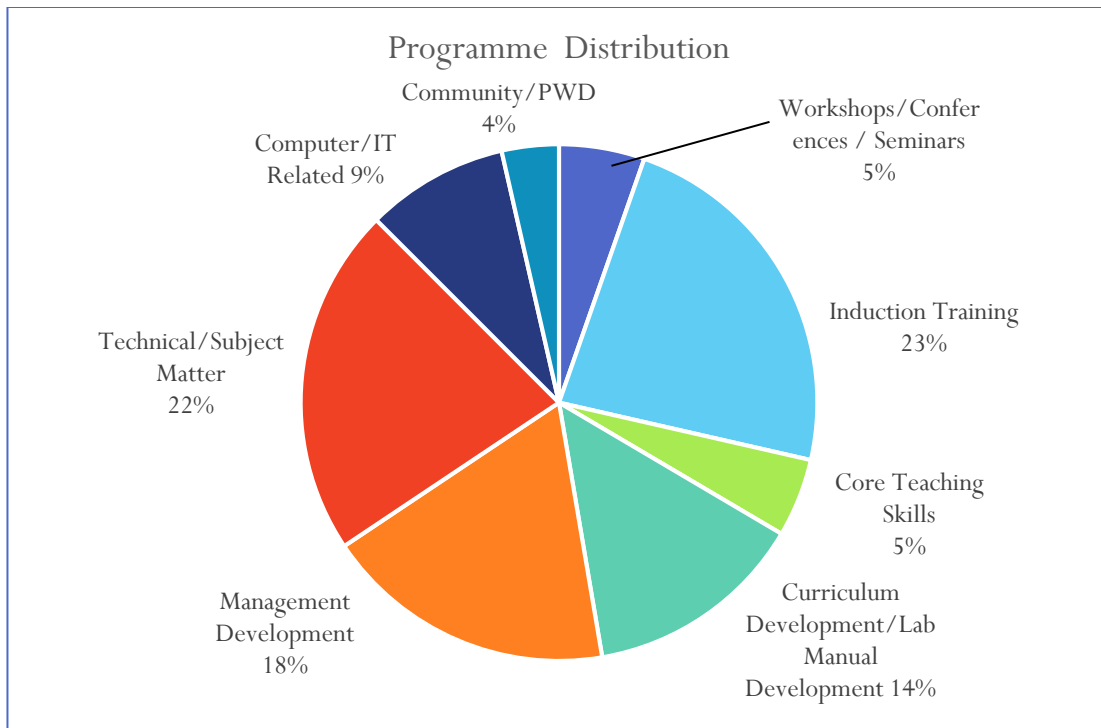


FIGURE 3: PROGRAMME DISTRIBUTION 2017-18

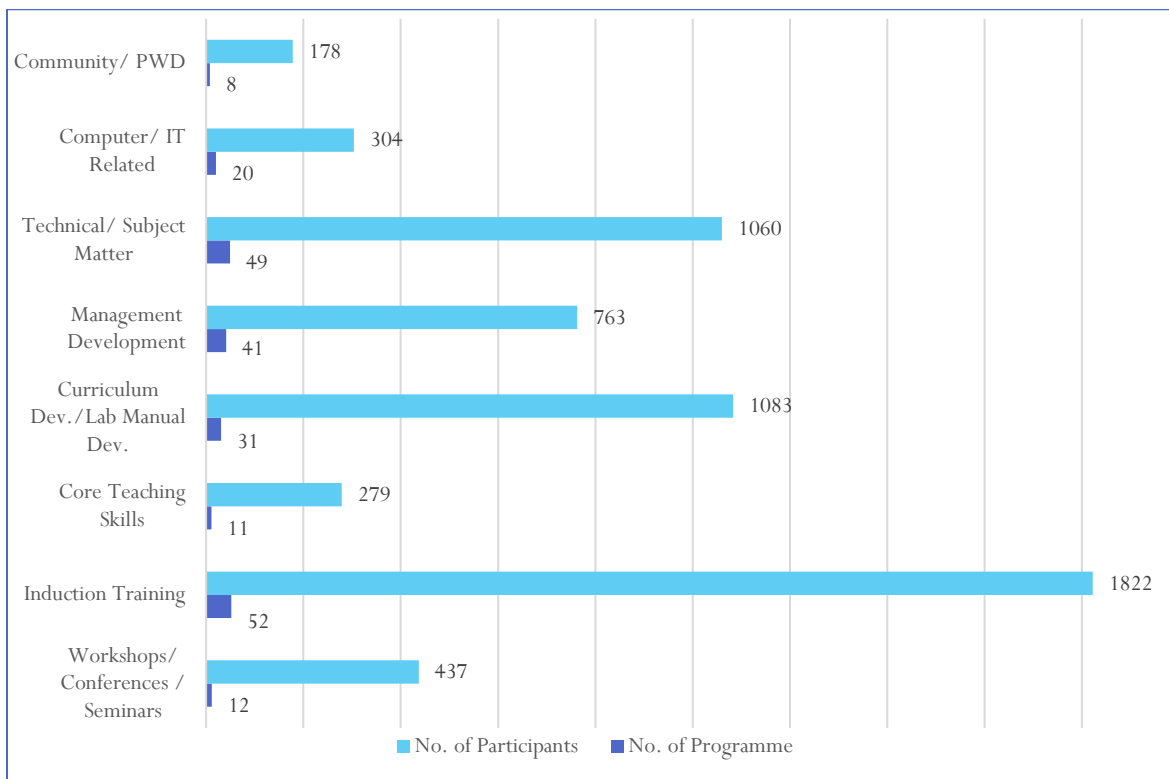
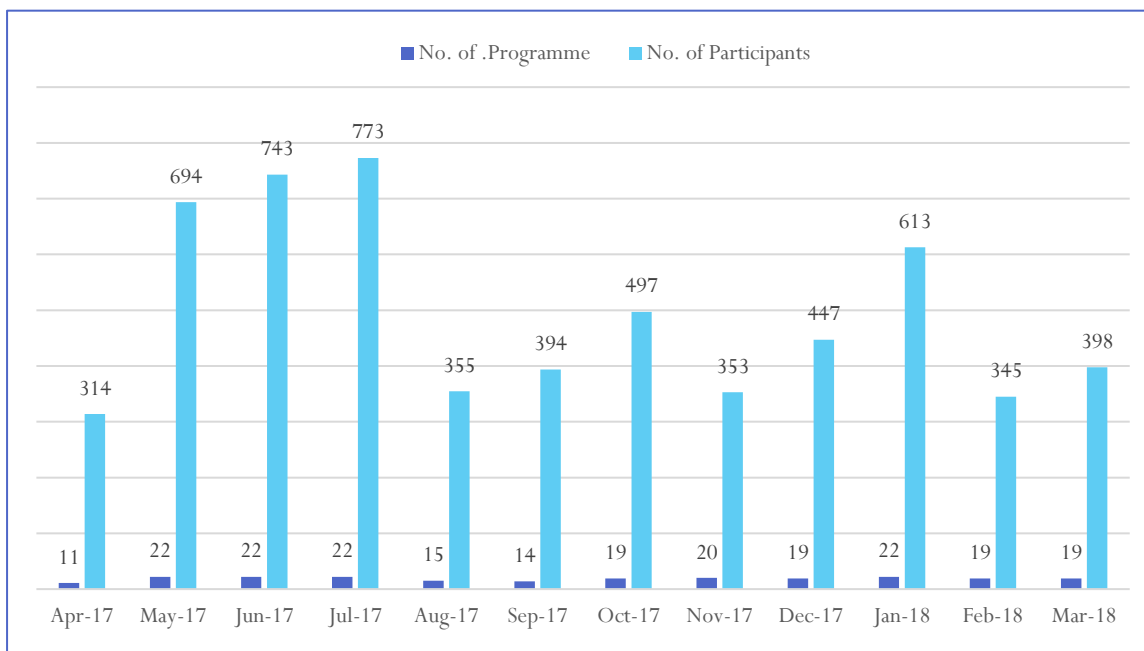


FIGURE 4: AREA WISE DISTRIBUTION OF PROGRAMMES CONDUCTED DURING 2017-18

TABLE 6-4: MONTH WISE DISTRIBUTION OF STAFF DEVELOPMENT PROGRAMMES/ WORKSHOPS/ CONFERENCE FOR TECHNICAL INSTITUTIONS (APRIL 2017 TO MARCH 2018)

S. No.	Month	Number of Programmes	Number of Participants
1	April 2017	11	314
2	May 2017	22	694
3	June 2017	22	743
4	July 2017	22	773
5	August 2017	15	355
6	September 2017	14	394
7	October 2017	19	497
8	November 2017	20	353
9	December 2017	19	447
10	January 2018	22	613
11	February 2018	19	345
12	March 2018	19	398
	Total	224	5926

FIGURE 5: MONTH WISE DISTRIBUTION OF PROGRAMMES/ WORKSHOPS/ CONFERENCES



Some of the significant aspects like NBA accreditation, outcome-based education, spoken tutorial, virtual labs and web-based learning are specially emphasised during the programmes.

6.2. Learning Resources Development

A. Instructional Resources

Faculty prepared variety of instructional resources for the purpose of training the faculty also wrote books, developed curriculum documents, proposals and guideline documents for the institute. A summary of these resources are given in Table 6-5 along with complete list of video lectures and e-contents in

Table 6-6.

TABLE 6-5: SUMMARY OF ACADEMIC RESOURCES

Sl.No.	Type of Learning Resources	Numbers
1.	Video Programmes	60
2.	PowerPoint Presentation & Animations	260
3.	Hand-outs	09
4.	Curriculum Documents	39
5.	Documents for Ministry/Reports	02
6.	Technical proposals, Guideline documents, etc.	5
7.	TNA Tools	0
8.	e-content on Technical Topics	04
9.	Exercise Book	2
10.	Journal of Engineering, Science and Management Education (Vol. 9, Issue III) Journal of Engineering, Science and Management Education (2 Special Issues on ICT)	3
11.	e-content for MOOCS (Modules)	31
12.	Lab Manuals	0
13.	Model Question papers	0
14.	Case Studies	0
15.	Script Development	85
16.	Total	500

TABLE 6-6: LIST OF VIDEO LECTURES PRODUCTION & E-CONTENT DEVELOPMENT 2017-18

E-Content Development during 2017-2018				
Sr. No.	Title	Programme ID	Expert	Direction
1.	E-Content on CPU Scheduling	ID-31	Participant Teachers	SSK/ AAK/PS
2.	E-Content on Color Theory	ID-31		AAK/SSK/PS
3.	E-Content on Amplitude Modulation	ID-31		AAK/SSK/PS
4.	E-Content on Network Topologies	ID-31		SSK/AAK/PS
DEM Video Production during 2017-2018				
Sr. No.	Title	Programme ID	Expert/ Presenter	Direction
1.	Concentration Cell Corrosion	ID-20	Participant Teachers	SSK/ AAK
2.	Injection Molding	ID-20		SSK/ AAK
3.	Introduction to Offset Printing	ID-20		SSK/ AAK
4.	Electrical Earthing	ID-20		SSK/ AAK
5.	Electric circuit	ID-20		SSK/ AAK
6.	Optical fiber communication	ID-20		SSK/ AAK
7.	Traffic stream characteristics	ID-20		SSK/ AAK
8.	Stripping ratio	ID-20		SSK/ AAK
9.	Volume of solids	ID-20		SSK/ AAK

10.	CPU Scheduling	ID-31		SSK/AAK/PS
11.	Color Theory	ID-31		AAK/SSK/PS
12.	Amplitude Modulation	ID-31		AAK/SSK/PS
13.	Network Topologies	ID-31		SSK/AAK/PS
14.	Western Region Client Meeting of Heads of Technical and Vocational Education Institutions	Institute Event	Director, faculty, guests	SSK/ RG
15.	Stake Holders Interaction Meeting	Institute Event	Director, faculty, guests	AAK/SSK/ RG
16.	Interview on “Development of technical education and contributions of NITTTR, Bhopal”	Institute Event	Prof. G. S. Chandran, Ex-Professor, TTTI, Bhopal with Prof. DSK	SSK

Introductory videos of MOOCs

Sr. No.	Title	Programme ID	Expert	Direction
1.	Fundamentals of Curriculum in Engineering Education	MOOC	JE, VHR, AP	SSK
2.	Learning and Instruction	MOOC	KS, CM, AD, AT	AAK
3.	Basic Instructional Methods	MOOC	SSM, KKJ, ASW	SSK
4.	Advanced Instructional Methods	MOOC	AAK, SP, JPT	AAK
5.	Instructional Media	MOOC	SSK, PS, VS, SK	SSK
6.	ICT in Teaching & Learning	MOOC	KJM, RKK, SS	SSK
7.	Accreditation for Diploma Engg. Prgs.	MOOC	BLG, AR, VDP	SSK
8.	Accreditation for UG Engg. Prgs.	MOOC	RKD, SA, SRY, ASR	SSK
9.	Accreditation for PG Engg. Prgs.	MOOC	DSK, CSR, SRY, HJK	SSK
10.	Quality Management Tools and Techniques	MOOC	RBS, MAR	SSK
11.	Performance Appraisal and Management	MOOC	PD, RP, BS	SSK
12.	Technical Education for sustainable development	MOOC	SKG, AKS, AAD, PKP	SSK
13.	Industry-Institute-Community Partnership	MOOC	RGC, AKJ, ND, AM	AAK

List of MOOCs videos recorded

Sr. No.	Title	Programme	Expert/ Presenter	Direction
1.	Concept of Vision	Accr.for Dip. Engg. Prg.	Dr. B. L. Gupta	AAK
2.	Process of Crafting Vision		Dr. B. L. Gupta	AAK
3.	Purpose & Concept of Mission Statement		Dr. B. L. Gupta	RG/AAK
4.	Process of Crafting Mission Statements		Dr. B. L. Gupta	RG/AAK
5.	Accreditation of Diploma Programmes - PEO Part-1		Dr. B. L. Gupta	AAK
6.	PEO-Part-2 (Crafting PEO)		Dr. B. L. Gupta	AAK
7.	Group Discussion Part-1	Adv Instruc. Methods	Prof. J. P. Tegar	SSK
8.	Group Discussion Part-2		Prof. J. P. Tegar	SSK
9.	Group Discussion Part-3		Prof. J. P. Tegar	SSK
10.	Learning and Instruction (Process of Learning)	Learning and Instruction	Dr. Ajit Dixit and Prof. Anjana Tiwari	RG
11.	Individual differences in learning		Prof. Anjana Tiwari	RG

12.	Learning Styles of Students		Prof. Anjana Tiwari	RG/AAK
13.	Behaviorist approach to learning		Dr. Kiran Saksena	RG
14.	Formulation of Course Outcome	Accr. for PG Engg. Prg.	Dr. D. S. Karaulia	RG/AAK
15.	Evolution of Curriculum for PG Eng. Prog. Part-1		Dr. D. S. Karaulia	RG/AAK
16.	Evolution of Curriculum for PG Eng. Prog. Part-2		Dr. D. S. Karaulia	RG/AAK
17.	Evolution of Curriculum for PG Eng. Prog. Part-3		Dr. D. S. Karaulia	RG/AAK
18.	Curriculum Gap Analysis		Dr. D. S. Karaulia	RG/AAK
19.	Attributes of Complete Curriculum		Dr. D. S. Karaulia	RG/AAK
20.	What researches say about instructional media Part-1	Instructional Media	Dr. Prabhakar Singh	PS
21.	What researches say about instructional media Part-2		Dr. Prabhakar Singh	PS
22.	Cognitive Theory of MM Learning Part-1		Dr. Prabhakar Singh	PS
23.	Cognitive Theory of MM Learning Part-2		Dr. Prabhakar Singh	PS
24.	Principles of Multimedia Learning		Dr. Prabhakar Singh	PS
25.	Human Information Processing System Part-1		Dr. Prabhakar Singh	PS
26.	Human Information Processing System Part-2	Dr. Prabhakar Singh	PS	
27.	Instruments for Performance Appraisal (API) Part-1	Performance Appraisal and Management	Prof. Roli Pradhan	RG
28.	Instruments for Performance Appraisal (API) Part-2		Prof. Roli Pradhan	RG
29.	Credit Point System Part-1		Prof. Roli Pradhan	RG
30.	Credit Point System Part-1		Prof. Roli Pradhan	RG
31.	Activities of Industry Institute Partnership	Industry Institute Interaction	Dr. Atul Mishra	RG

6.3 International and National Programmes/activities under Projects

Apart from the short-term and long-term programmes, the institute undertook various academic activities under Projects. The following are some of the prominent activities:

A. International Programmes and activities:

1. Two programmes of two weeks duration were conducted under the Colombo Plan Technical Cooperation Scheme (TCS) of MEA, in which 15 participants from member countries participated.

B. National Level Projects & Programmes:

1. **Curriculum Redesign Project:** The institute has undertaken curriculum redesigning projects for MSBTE, Maharashtra and CSVTU, Chhattisgarh and developed curriculum for 33 Diploma programmes. Total curricula for 213 courses were developed.
2. **Teaching Learning Centre Project:** The project under Pandit Madan Mohan Malviya National Mission on Teacher and Teaching- The institute has got TLC Project fully funded by MHRD for Vocational Education and Entrepreneurship development.
3. **SWAYAM MOOC Project on Teacher Education:** The institute is producing 13 MOOCs for SWAYAM platform fully funded by MHRD.

4. **Community Development Project:** The institute is supporting community development through polytechnic scheme of Government of India through 97 Community Polytechnics in the western region. During 2017-18, a total of 29,089 persons were trained in different trades. The institute conducted CDTP workshops for polytechnics of M.P., Maharashtra, Gujarat and Goa states for planning and monitoring of the scheme.
5. **Project on “Persons with Disability”:** Institute is supporting 14 Polytechnics to implement the scheme for integrating person with disabilities in the main stream of Technical and Vocational Education (PWD scheme). NITTTR conducted 8 programmes under CDTP and PWD schemes and trained 178 officials.
6. **Skill Development Project:** Nine training programmes were conducted by the institute for Directorate of Skill Development, Government of MP.

6.4 Research and Development (Journal/ Papers/ Books/ Research Studies)

Research and development are part of the academic activities undertaken in the institute. Writing research paper/ books and conducting research work is prominent among these. The details are as follows.

A. Journal/ Institute Magazine

1. The Journal of Science, Engineering & Management Education, registered under ISSN, is a quarterly journal published from the institute. It's e-version is also available. It publishes peer reviewed original research papers, abstract of doctoral and master's dissertations & major research projects, case studies, book reviews, bibliography on related topics from authors and researchers from the country and abroad. The journal endeavours to promote innovative ideas, research & reviews in different functional areas of Engineering, Science, Management & Technical Education and other related areas.
2. The institute publishes bi-monthly news magazine “Sampark Sarita” containing academic and other activities conducted in the institute and its extension centres. The magazine is published in Hindi.

B. Research Papers/ Books published/ Contributed Chapter/s

S. No.	Title	Where published & Date of publication	Author/s
1.	Course Learning outcomes attainment in Polytechnic Institutions of India	Proceedings of 158th the IIER International conference, Tokyo, Japan, 29th -30th March 2018. pp.16-22	C.S. Rajeshwari, Anjali Potnis, Ramesh B. Shivagunde
2.	Total quality improvement through quality circles in technician education institutions of India	Proceedings of 158 th the IIER International conference, Tokyo, Japan, 29th -30th March 2018. pp.23-26	Ramesh B. Shivagunde, C.S. Rajeshwari, Anjali Potnis
3.	Survey Analysis of Usage of Mobile Platform by the Faculty of Technical Institutes for Teaching and Learning	Proceedings of 158 th the IIER International conference, Tokyo, Japan, 29th -30th March 2018. pp10-15	Anjali Potnis, C.S. Rajeshwari, Ramesh B. Shivagunde
4.	Radix-2 DIT Fast Fourier transform using Complex Multiplication	International Journal of Innovative research in Computer and Communication Engineering (IJIRCCE), July 2017, Vol:05, Issue:07, July2017	Surbhi Kudeshia and Anjali Potnis

S. No.	Title	Where published & Date of publication	Author/s
5.	Optimal Design of a Linear Phase FIR Filter Based on Particle Swarm Optimization	International Journal of Advance Engineering and Research Development Volume 4, Issue 8, August -2017	Neelam Singh, Anjali Potnis
6.	Detection and tracking of Object: A detail study	International Journal of Engineering and Applied Computer Science (IJEACS), Volume: 02, July 2017.	Kuldeep Narayan Shukla, Anjali Potnis, Prashant Dwivedy
7.	A Review on Image Enhancement Techniques	International Journal of Engineering and Applied Computer Science (IJEACS) Volume: 02, Issue: 07, July 2017	Kuldeep Narayan Shukla, Anjali Potnis, Prashant Dwivedy
8.	A Detailed Analysis on Feature Extraction Techniques of Panoramic Image Stitching Algorithm	(IJEACS) International Journal of Engineering and Applied Computer Science, Volume: 02, Issue: 05, May 17	Shivangi Pandey, Anjali Potnis, Madhuram Mishra
9.	Improved image security scheme using combination of image encryption and reversible watermarking	4th International Conference on Signal Processing and Integrated Networks (SPIN), India, Feb. 2017	A Pushpad, Anjali Potnis
10.	An Advance approach of Image Encryption using ASE, Genetic Algorithm and RSA algorithm	International Journal of Engineering and Applied Computer Science (IJEACS), Volume: 02, Issue: 08, August 2017.	Anjali Potnis, Prashant Dwivedy, Avinash Ray
11.	Wireless Transmission detection and Monitoring System using GNU radio and Multiple RTL-SDR Receiver	International Journal of Engineering Research and Application (IJERA), Vol. 07, Issue: 07, Part-1, pp.70-76, July 17	Madhuram Mishra, Anjali Potnis
12.	Enhancement in Gain for Centralized Cooperative Spectrum Sensing in Cognitive Radio Network using Improved Local Sensing	International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engg. (IJREEICE), Vol 5, Issue 6, June 2017	Charu Bhatnagar, Anjali Potnis, Prashant Dwivedy
13.	Performance analysis and optimization schemes for cooperative spectrum sensing and information fusion for cognitive radio networks: A Survey	IEEE Digital Xplore, IEMENTech, Science city, Kolkata, April 2017	Charu Bhatnagar, Anjali Potnis, Prashant Dwivedy, Sunil Kumar Meena
14.	A Survey on Key Frame Extraction Method of a MPEG video	ICCCA-2017, Galgotia Engineering college, Greater Noida, May 2017	Shivangi Pandey, Prashant Dwivedi, Sunil Meena, Anjali Potnis
15.	Review and Application of Different Contrast Enhancement Technique on Various Images	IEMEN Tech. 2017, 28-29 April 2017, Science city, Kolkata, IEEE Digital Xplore	S. K. Meena, Anjali Potnis, M. Mishra, P. Dwivedy, S. Pandey
16.	High quality Block Truncation code for pattern fitting algorithm using Colour Image	International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Vol.:06, Issue:05, April 2017	Usha Shukla, Anjali Potnis
17.	Evaluation of reactive power cost using flexible alternating current transmission system devices in restructured power systems	20 th International research conference on Power Engineering, Power Systems and Power Plants 29-30, 2018, Osaka Japan conference proceedings.	A. S. Walkey, N. P. Patidar
18.	Design of Hybrid Speed Controller for Dynamic and Steady State Stability	3 rd IEEE International Conference for Convergence in Technology (I2CT),	Shrikant Dandotia, A. S. Walkey

S. No.	Title	Where published & Date of publication	Author/s
	Enhancement of DTC Based Induction Motor Drive	Pune, April, 2018	
19.	Simulation of Electron Trajectories in Undulator with SCILAB	InPAC 2018, Jan 2018	H. Jeevakhan, S. Kumar
20.	Analysis of Electron Trajectories in Harmonic Undulator with SCILAB's Model Based Design Codes	FLS 2018, Shanghai, China, March 2018	H. Jeevakhan, S. Kumar
21.	Implementation of an OBC model- Maharashtra Experience	MIRDEC-7th, International Academic Conference on Social Science, Multidisciplinary and Globalization Studies, 26-29 March 2018, Madrid, Spain, Conference Proceedings	S.S. Kedar, A. A. Khajanchee, Joshua Earnest,
22.	Viral Proteases and Their Inhibitors: Advances in Studies on Adenovirus Proteases and Their Inhibitors.	Vol. 1 Chapter 3, 59-75, 2017, Academic Press, Elsevier	Basheerulla Shaik, Satya P. Gupta, Yenamandra S. Prabhakar
23.	QSAR and Molecular Docking Studies on a Series of 1- Amino-5H-pyrido [4,3-b] indol-4-carboxamides acting as Janus Kinase 2 (JAK2) Inhibitors	Letters in Drug Design & Discovery, 2018, Bentham Science Publishers	Basheerulla Shaik, Satya P. Gupta, Tabassum Zafar, K. Anita
24.	QSAR and Molecular Docking Studies on a Series of Oxazolidinones as HIV-1 Protease Inhibitors	Journal of Applied Biopharmaceutics and Pharmacokinetics, 2017, 5, 30-36	Basheerulla Shaik, Satya P. Gupta
25.	Simulation of Electron Trajectories in Undulator with SCILAB	Indian PAC 2018 proceedings, Jan 2018	H. Jeevakhan, S. Kumar
26.	Harmonic Undulator Radiation with Dual Non-Periodic Magnetic Components	60 th ICFA Advanced Beam Dynamics Workshop on Future Light Sources FLS2018, 2018, Proceedings, JACoW Publishing	H. Jeevakhan, G. Mishra
27.	Analysis of Electron Trajectories in Harmonic Undulator with SCILAB's Model Based Design Codes	60 th ICFA Advanced Beam Dynamics Workshop on Future Light Sources FLS2018, 2018, Proceedings, JACoW Publishing	H. Jeevakhan, S. Kumar, G. Mishra
28.	Mid Latitude Sporadic E-layer Variability during Ascending Phase of Solar Cycle	J. Sci. Res. 9 (1), 27 41, 2017	R. Atulkar, P. A. Khan, A. A. Mansoori, P. K. Purohit
29.	Effect of Ionospheric Irregularities on GPS Signals During Declining Phase of Solar Cycle 23 At Crest of EIA, Bhopal	Journal of Physics: 1234567890 836, 2017	Azad A. Mansoori, P. K. Purohit
30.	Study of Ionospheric TEC Variability over Low, Mid and High Latitudes during Solar Maximum and its comparison with IRI-	Astronomical and Astrophysical Transactions (AApTr), 2018, 2018 Vol .30, Issue 2, pp. 223–232	Roshni Atulkar, Azad A. Mansoori, Parvaiz A. Khan, Rafi Ahmad, P. K. Purohit
31.	Effect of geomagnetic storms of different solar origin on the ionospheric TEC	140133, American Institute of Physics (AIP), 2018	Azad A. Mansoori, Parvaiz A. Khan, P. K. Purohit,

S. No.	Title	Where published & Date of publication	Author/s
32.	Variability of Geomagnetic Field with Interplanetary Magnetic Field at Low, Mid and High Latitudes	J. Sci. Res. 10(2), 133-144, 2018	Shivangi Bhardwaj, Parvaiz A. Khan, Roshni Atulkar, P. K. Purohit
33.	Sufficiency and Duality in Non-Smooth Interval Valued Programming Problems	Journal of Industrial and Management Optimization, 2018	Deepak Singh, Bilal Ahmad Dar, Do Sang Kim
34.	Existence Results for Integral Equations and Boundary Value Problems via Fixed Point Theorems for Generalized F -Contractions in b -Metric-Like Spaces	Journal of Function Spaces, 1(1), 1-14, 2017	Vishal Joshi, Deepak Singh, Andrian Petrusel
35.	Applications of fixed-point results for cyclic Boyd-Wong type generalized F - ψ -contractions to dynamic programming	Journal of Mathematics and Computer Science, 17(2), 200-215, 2017	Deepak Singh, Varsha Chauhan, Poom Kumam
36.	Geraghty type generalized F -contractions and related applications in partial b -metric Spaces	International Journal of Analysis, 1-14, Vol. 2017,	Deepak Singh, Varsha Chauhan, R. Wangkeeree
37.	Common fixed point of a power graphic (F - ψ)-contraction pair on partial b -metric spaces with application	Nonlinear analysis: Modelling and control, 662-678, 22(5), 2017	Deepak Singh, Varsha Chauhan, Ishak Altun
38.	Performance and Status of Utilization of Resources of NITTTR, Bhopal	Internal research study (not sent for publication)	V. H. Radhakrishnan, K. Saksena, S. S. Mathew, B. L. Gupta, S. S. Kedar
39.	A Conceptual Review and Understanding of Instructional Media in Teaching and Learning	International Conference on Ongoing Research in Management & IT, INCON-XIII, 12-13 Jan 2018, Pune	Ajit Dixit
40.	A Chapter on "Post-Colonial and Cultural Dilemmas in Remember the House of Santha Rama Rau"	Book entitled "Post-Colonial and Cultural Dilemmas in Indian Writing in English", Indotech Publications Pvt. Ltd, Latur, Second Edition 2017	Anjana Tiwari
41.	A Chapter on "Post-Colonial and Cultural Dilemmas in the novels of Anita Desai and kamala Markandaya"	Book entitled "Indian English Literature Issues and Explorations", Thematic Publications Pvt. Ltd., Latur, Second Edition 2018	Anjana Tiwari
42.	Visualizing the Future of Learning Social Media helping Education: Blending Technology and Information	Journal Journey.net special issue, Dec 2017	Anjana Tiwari
43.	Research Methodology for Building Dual-Blended Education System: Professional Communicative Skills and Technical Education	Journal of Advance Research in Engineering and Sciences, Sept. 2017	Anjana Tiwari
44.	Identifying diversity: Bridging cultures via cross cultural	International Conference of Social Science and Humanities at University of	Anjana Tiwari

S. No.	Title	Where published & Date of publication	Author/s
	communication	Nevada, Las Vegas USA, 12th to 16th March 2018	
45.	Samrangansutra Amalgamation of knowledge, Education and Technology.	International Conference on Raja Bhoj's Contribution on Architecture, Planning and its Relevance Today, Dec. 22-24, 17	Anjana Tiwari
46.	Comparative analysis of MOOCs platforms and courseware design in context of SWAYAM enabled delivery	6 th International Conference on "Information and Education Technology (ICIET 2018)" at Osaka, Japan from 06-08/01/2018	B. L. Gupta D. Singh Karaulia
47.	Forecasting Profit & Loss Ratios of Public Sector Banks in India	Annual International Conference on Social Sciences, Applied Science, Economics and Management SASE- Dec, 2017	Roli Pradhan and Rajdeep Singh Khanuja
48.	Avenues of Foreign Direct Investment in Indian Education	Osaka 23rd International conference on Business, Economics, Social Science & Humanities-BESSH-2017, Osaka Japan, 2017	Roli Pradhan
49.	Operations Management	Archer & Elevators Publishing house, Bangalore-2017	Deshmukh, Chitale, Dubey Nishith
50.	Partial Replacement for Cement and Coarse Aggregate in Concrete by Using Egg Shell Powder and Coconut Shell	19 th International Conference on Civil Engineering & Environment, 26-27 October, 2017 in Chicago, USA	A. K. Jain M. C. Paliwal J. N. Tiwari
51.	Environmental Aspects in the Job Performed by Supervisors Working in Industries	19 th International Conference on Civil Engineering & Environment, 26-27 October, 2017 in Chicago, USA	M. C. Paliwal A. K. Jain
52.	Implementation of CDTP scheme in the Western Region of India	Golden Jubilee National Seminar on "Promotion of Skills and Technologies for Sustainable Rural Development in India" at NITTTR Chandigarh, 31 st Aug. – 1 st September 2017	A. K. Jain
53.	Compressive Strength and Workability of Concrete Using Dust as Partial Replacement of Sand and Glass Powder as Cement	International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 5 Issue VIII, August 2017	Chandrabati Charmkar, A. K. Jain, Vikash Kumar Singh
54.	Compressive and flexural strength Studies in Hair reinforced Concrete	International Journal for Research in Applied Science and Engineering Technology, Vol. 5, Issue VI, June 2017	M.Dwivedi, R.K. Dixit
55.	Comparative analysis of multi-story building with seismic and pushover methods	International Journal for Research in Applied Science and Engineering Technology - June 2017	R.K. Dixit
56.	Crisis of Engineering Education in India	Asia-Pacific Conference on Education, Teaching & Technology 2018, 25-26 January 2018 at the Kasetsart University, Bangkok, Thailand	R. K. Dixit, S. Roy, M. Pathak
57.	Application of plasma arc torch	Asia-Pacific Conference on Education,	R. K. Dixit, S. Roy,

S. No.	Title	Where published & Date of publication	Author/s
	technology in solid waste management	Teaching & Technology 2018, 25-26 January 2018 at the Kasetsart University, Bangkok, Thailand	S. Sinha
58.	T-shaped engineer: the need of hour	MIRDEC-7th, International Academic Conference on Social Science, Multidisciplinary and Globalization Studies (Global Meeting of Social Science Community) 26-29 March 2018, Madrid, Spain	R. K. Dixit
59.	Fully Stressed Design of Howe Truss using STAAD.Pro Software	International Journal of Engineering Development and Research, Sept. 2017	C.K. Jha, M.C. Paliwal
60.	Iterative Analysis of distorted Rectangular Plate	International Journal of Current Trends in Engineering & Research, Sept. 2017	Rakshit Selot, M.C. Paliwal
61.	Comparative Analysis of Diagrid and Chevron Braced Frame Structure under Dynamic Loading	International Journal for Research in Applied Science & Engineering Technology, December 2017	Navneet Kumar, M.C. Paliwal
62.	Experimental Analysis for Developing Hybrid Concrete using Red Mud, Pet Coke Adding Fibre & Admixture	IWAM October, 2017.	Vartika Varshney, Zeeshan Ahmad, J.P. Tegar
63.	Evaluation of Mechanical and Microstructural Properties of Alkali Activated Slag Concrete Reinforced with Polystyrene Shredding and Accelerator	IWAM 2017 – Feb 2017 UAE	Zeeshan Ahmed, J.P. Tegar
64.	Similitude study of Chevron Braced Framed Structure	Journal: International Journal of Scientific Engineering and Science, Vol 3, October 2017	M.C. Paliwal, Love Kumar
65.	Training of Teachers of Engineering Education: Teaching Domains Competency Framework and Models	3 rd International Conference on Teaching Education & Learning (ICTEL), 18-Feb to 19-Feb, 2018, Dubai, United Arab Emirates, 2018	J. P. Tegar
66.	Secure Communication in Oppnets using ECC	Lambert Academic Publishing. Germany.	Pragati Ambekar, M A Rizvi and Khaleel Ahmed
67.	Sentiment Analysis of E-Commerce site using Deep Neural Network and Probabilistic Approach	International Journal of Engineering Science and Computing (IJESC), Volume 7 Issue No. 11, Nov 2017	Himanshu Sharma, Alka Pande, M. A. Rizvi
68.	Prediction of Heart Disease using Machine Learning Algorithms: A Survey	International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC) Volume: 5 Issue: 8 August 2017 pp 99-104	Himanshu Sharma, M. A. Rizvi
69.	Data Aggregation in Cloud Using Map Reduce Framework	Journal of Ultra Computer & Information Technology an International Open Free Access Peer Reviewed Research Journal of Computer Science Engineering & Information Technology JUCIT, Vol. 8(3), 20-25, 2017	Suchi Singh Parihar, M. A. Rizvi

S. No.	Title	Where published & Date of publication	Author/s
70.	Active Intelligent Speed Adaptation System	International Journal of Advanced Research in Computer and Commu. Engineering, Vol. 6, Issue 4, April 2017	M. A. Rizvi, Ifra Khan
71.	Review on Different Techniques of Digital Watermarking	International Journal of Advanced Research in Computer and Communication Engg (IJARCCE), Vol. 6, Issue 4, April 2017	M. A. Rizvi, Ifra Khan
72.	Increased PSNR with Improved DWT Digital Watermarking Technique	International Conference on Emerging Trends in Expert Applications & Security (ICETEAS 2018) Jaipur	Ifra Khan, Kushal Pal Singh, Akshay Jadhav, M. A. Rizvi
73.	Analysis of Job Stress Affecting Performance of Technical Teachers	28th International Conference on Teaching, Education & Learning (ICTEL) 20-21 Dec- 2017, Deira, Dubai, United Arab Emirates	M. A. Rizvi
74.	5G Disruptive Technologies and Architecture	In edited book titled "Advanced Wireless Sensing Techniques for 5G Networks" published by CRC, Taylor and Francis Publication Group, USA.	Anu Mangal, M. A. Rizvi, Shadab Pasha
75.	Wireless Adhoc Networks With 5G Technology	In edited book titled "Advanced Wireless Sensing Techniques for 5G Networks" published by CRC, Taylor and Francis Publication Group, USA	Shadab Pasha, M. A. Rizvi, Anu Mangal
76.	An Analysis of Feature Selection Methods for Multiclass Text Classification	Eight international Conference on Advances in Computing Electronics and Electrical Technology-CEET 2018,	Sanjay Agrawal, Mayank Kalbhor
77.	Collaborative Filtering Based Temporal Social Recommendation	Journal of The Institution of Engineers (India): Series B, Springer-Verlag Berlin Heidelberg 2017, (SCI Journal, Under Review)	Krishna Mohan, Shailendra Singh.
78.	SVM Hyper-Parameters Optimization using Quantized Multi-PSO in Dynamic Environment	Journal of Universal Computer Science, 2017, (SCI Journal, Under Review)	Dhruba Jyoti Kalita, Shailendra Singh
79.	Resource Provisioning and Scheduling Algorithm for Meeting Cost and Deadline-Constraints of Scientific Workflows in IaaS Clouds	Information and Computation-Journal Elsevier, 2017 (SCI Journal, Under Review)	Amit Gajbhiye, Shailendra Singh,
80.	An IWD-based feature selection method for intrusion detection system	Soft Computing, Springer, pp. 1-10, 2017. (SCI Journal)	Neha Acharya, Shailendra Singh,
81.	Virtual Machine Migration Approach in Cloud to Optimize Resource Utilization	Journal of Computer and Mathematical Sciences, Vol 9(4), pp.309-317, 2018.	Damodar Tiwari, Shailendra Singh, Sanjeev Sharma
82.	A Comparative Study of Load Balancing Algorithms in Cloud Computing	IJRECE, Vol 6 (1), pp.343-351, 2018	Damodar Tiwari, Shailendra Singh, Sanjeev Sharma
83.	Impact of IPv4, IPv6 and Dual Stack	International Journal of Computer	V. Jain, D. Tiwari,

S. No.	Title	Where published & Date of publication	Author/s
	Interface over Wireless Networks	Network and Information Security, April 10(4):65-71, 2018	Shailendra Singh, S. Sharma
84.	A Fusion Based Authentication Technique	International Journal of Advances in Engineering Research, Volume 13, Issue 4, pp.43-48, 2017	D. Chilbule, D. Tiwari, Shailendra Singh, S. Sharma
85.	Theoretical Analysis of Bio-Inspired Load Balancing Approach in Cloud Computing Environment	IJDITA, Vol.10 (11), pp.15-26, 2017	D. Tiwari, Shailendra Singh, S. Sharma
86.	Improved intrusion detection system based on optimized SVM using M-FOA	International Journal of Advanced Research and Development, Volume 2; Issue 6; pp.644-650, November 2017.	Haneef, Farha, and Shailendra Singh.
87.	A Feature Selection Technique for Intrusion Detection System Based on IWD and ACO	International Journal of Advanced Research in Computer Science vol.8 no.9 pp.270-275, 2017.	Haneef, Farha, and Shailendra Singh.
88.	Fundamentals of Cloud Computing	Oxford University Press (under publication)	Shailendra Singh
89.	Exploring Enterprise service Bus in the Service-Oriented Architecture Paradigm	Published by IGI Global Publisher, USA. (edited book), 2017	Bhadoria, Chaudhari, Tomar, Shailendra Singh
90.	Book chapter on "Cloud Computing"	Book title "Handbook of Research on Applied Computational Intelligence in Engineering", IGI Global Publisher, USA, 2017	Shailendra Singh, Sunita Gond
91.	Book chapter on "Middleware Architecture Using SOA System"	Book title "Exploring Enterprise service Bus in the Service-Oriented Architecture Paradigm", IGI Global Publisher, USA, 2017, pp1-13	Praveen Kumar Mudgal, Shailendra Singh, Sanjay Singh Kushwah
92.	Global Server Load Balancing with Networked Load Balancer for Geographically Distributed Cloud Datacenters	Proceedings of the international conference on "Science and Innovative Engineering (ICSIE 2017)" Rio De Janeiro, Brazil from 27-28/08/2017	Shailendra Singh, Amit Gajbhiye
93.	Cloud Computing Security with Identity-Based Authentication Using Heritage-Based Technique	International Journal of Advanced Engineering Research and Science (IJAERS), Vol-4, Issue-5, May- 2017	Rishi Kumar Sharma, Ravi Kant Kapoor
94.	A Survey On: Cluster Based Routing Protocols in Wireless Sensor Network	International Journal of Innovative Research in Science, Engineering and Technology, Vol. 6, Issue 6, June 2017	Sunil Kumar Patel, Ravi Kant Kapoor
95.	Multipath TCP-Goals and Issues	International Journal of Research and Scientific Innovation (IJRSI), Volume IV, Issue VII, July 2017	Anurag Gupta, Manish Kumar Sharma, Ravi Kant Kapoor
96.	Survey on: Three-Dimensional Face Recognition in the Presences of Facial Expression	International Journal of Innovative Research in Science, Engineering and Technology, Vol. 6, Issue 8, Aug. 2017	Kshipra Soni, Ravi Kant Kapoor
97.	A Review on Combined Schemes to Encrypt and Compress Digital Images	International Journal of Advanced Research in Computer Science, Volume 8, No. 8, September-October 2017	Priya Yadav, R. K. Kapoor, Abhinav Pandey

S. No.	Title	Where published & Date of publication	Author/s
98.	Mobile Learning in Higher Education Through SWAYAM- Indian Context	International Academic Conference on Teaching, Learning and E-learning (IAC-TLEI 2018)", March 16 - 17, 2018 at Budapest, Hungary.	K.J. Mathai
99.	Analysis of Fracture on Turbo Expander Blade Tip to determine the Effect of Stress Intensity Factor by using Finite Element Method	Journal of Emerging Technologies and Innovative Research (JETIR), Volume 4, Issue 08, August 2017	Vandana Somkuwar
100.	A Review on Effect of Vibration on Compressor Blade	IJSART - Volume 3 Issue 10, Oct. 2017	Vandana Somkuwar
101.	Spin Test of Flywheel with Layered Composites Three-Dimensional Model to Determine Shear Stresses with Different Hub Angle	International Journal for Research Trends and Innovation, IJRTI, Volume 2, Issue 6, 2017	Vandana Somkuwar
102.	Effect of Spin and Energy Storage on Flywheel with Composites Materials: A Review	International Journal for Research Trends and Innovation, IJRTI, Volume 2, Issue 6, 2017	Vandana Somkuwar
103.	A Review on 3D printing Fused Deposition method technology	Journal of Emerging Technologies and Innovative Research (JETIR), Volume 4, Issue 12, Dec. 2017	Vandana Somkuwar
104.	Process parameter optimization of die sinking EDM-A Review	International Research Journal of Engineering and Technology (IRJET), Volume 5, Issue 7, July 2018	Vandana Somkuwar
105.	Comparative Analysis and Optimization of Machining Parameters Using Central Composite Design and Box Behnken Design Over Steel 1018	International Journal for Research Trends and Innovation, 2017 (UGC Approved)	A.K. Sarathe
106.	Static Analysis of Leaf Spring for Light Vehicle using Composite Material	International Journal for Scientific Research & Development, 2018	A.K. Sarathe
107.	Performance Analysis of Solar PV Panels using the developed Automated Cleaning System	American Journal of Engineering Research (AJER), 2018	A.K. Sarathe
108.	Comparative analysis and optimization of Mixed Model assembly line using Genetic Algorithm	Accepted in Materials Today: Proceedings (Elsevier), 2017	S.K. Pradhan
109.	Investigation on mechanical properties and microstructure of Ti-5Al-5V-5Mo-1Cr-1Fe Titanium alloy butt welded EBW joints	Accepted in Materials Today: Proceedings (Elsevier), 2017	S.K. Pradhan
110.	A Survey on Crashworthiness & Impact Effect on Automotive Vehicles	Accepted and submitted for inclusion in IEEE Xplore digital library	S.K. Pradhan
111.	A Two-stage approach to updating of mass, stiffness and damping matrices	International Journal of Mechanical Sciences, 140 (2018) 133–150 (Elsevier Publication)	S.K. Pradhan

C. Sponsored / Consultancy Projects

S. No.	Sponsoring agency	Title of the project	Area/Branch	Period/Year	Brief mention of progress	Name of the Principal Investigator/s
1.	MSBTE, Maharashtra	MSBTE Curriculum Redesign Project	Diploma and Allied Disciplines 18 Programmes	Jan 2016	Curricula of 90 courses of 18 Programmes till 5 th Sem. have been developed	Dr. Joshua Earnest Dr. Shashikant Gupta, Other faculty members involved: SP, AKS, VS, ND, AT, RKK, MAR, ASR, VDP, AP, SK, ASW, SSM, AAK, SSK
2.	CSVTU, Chhattisgarh	Curriculum Revision Project for CSVTU, Chhattisgarh	Diploma and Allied Disciplines 15 Programmes	Sept, 2016-2019	Curricula of 123 courses of 15 Programmes have been developed	Prof. Anju Rawley Other faculty members involved: KJM, SS, ASW, JE, CSR, AP, SP, VS, AKS, MCP, JPT, SRY, PV, RKD, AM, RGC, CM, AT, ND, AK, DS
3.	MHRD	Teaching Learning Centre Project under Pandit Madan Mohan Malviya National Mission on Teacher and Teaching	Vocational Education and Entrepreneurship development	2018-19	Advisory Body formed, 4 National W/S conducted in collaboration with AICTE, Trg institutes identified in regional state as well as from South	Dr. Peeyush Verma Other Members: AR, CM, ND, RGC, ASW, MAR, SSK, AM, DS, AKS
4.	Directorate of Skill Development MP	ToT of Training Officers on Skill Development	Skill Development	April 2017 to March 2018	Completed Nine programmes	Dr. Nishith Dubey Coordinators of the programmes: SP, MAR, SA, AKS, PT, RKK, SSK, AAK
5.	Department of Science and Technology, Ministry of Science and Technology, GOI	Multifunctional Railway Track Scavenging Vehicle'	Mechanical Engineering	2 years	Development of Vehicle is in progress. Computer Aided Modelling of the proposed vehicle is completed.	Dr. Sharad K. Pradhan
6.	SWAYAM MHRD, Project	MOOCS for Teacher Training	Fundamentals of Curriculum in Engineering Education	April 2017 to March 2019	Introductory 3 minutes videos of every MOOC completed and 31 video presentations recorded	Dr. J. Earnest Team- VHR, AP
			Learning and Instruction			Dr. K. Saksena Team- CM, AD, AT
			Basic Instructional Methods			Prof. S. S. Mathew Team- KKJ, ASW
			Advanced Instructional Methods			Prof. A. A. Khajanchee Team- SP, JPT

S. No.	Sponsoring agency	Title of the project	Area/Branch	Period/Year	Brief mention of progress	Name of the Principal Investigator/s
			Instructional Media			Dr. S. S. Kedar Team-VS, PS, SK
			ICT in Teaching and Learning			Dr. K. J. Mathai Team-RKK, SS
			Accreditation for Diploma Engineering Programmes			Dr. B. L. Gupta Team-AR, VDP
			Accreditation for UG Engineering Programmes			Dr. R. K. Dixit Team-SA, ASR, SRY
			Accreditation for PG Engineering Programmes			Dr. D. S. Karaulia Team-CSR, HJK
			Quality Management – Tools and Techniques			Dr. R. B. Shivagunde Team-MAR, DS
			Performance Appraisal and Management			Dr. Parag Dubey Team-RP, BS
			Technical Education for Sustainable Development			Dr. S. K. Gupta Team-AKS, AAD, PKP
			Industry-Institute-Community Partnership			Prof. R. G. Chouksey Team-AKJ, ND, AM

D. Programmes/ Workshops/ Research Studies organized

TABLE 6-7: TRAINING PROGRAMMES ORGANIZED UNDER ITEC/ TCS/ SCAAP SCHEME DURING 2017-18

S. No	Course Name	Duration	Place	Coordinator
1.	ID-28 Empowering Women Through Technical Education	8-19 Jan. 2018	NITTTR Bhopal	Dr. Kiran Saksena (13 Foreign Participants)
2.	Managerial Skills for Technical Teachers and Administrators	10-21 December 2018	NITTTR Bhopal	Dr. R. B. Shivagunde (2 Foreign Participants)

TABLE 6-8: OTHER WORKSHOPS/ MEETINGS ORGANIZED DURING 2017-18

S. No	Name	Duration	Place	Faculty
1.	Vetting workshops for Chhattisgarh State (4 Polytechnics) Chhattisgarh State (1 Polytechnic)	12-13 June 2017 17-19 July 2017	NITTTR Bhopal	DEEE, DCEA, DAS, DCEE, DME
2.	Inter NITTTR Collaborative Meeting	8-9 June, 2017	NITTTR Chennai	SSM, CM
3.	AICTE Awareness workshop for PMKVY by Technical Institute	14 July 2017	RGPV, Bhopal	CM

4.	Western region consultative meeting (WRCM) of the Heads of TVET Institutions	22 July 2017	NITTTR, Bhopal	All faculty
5.	Stakeholders Interaction Meeting	6 th Aug 2017	NITTTR Bhopal	All faculty
6.	EU – CII – CGPDTM – Seminar- Specialised program on Madrid Protocol- A route to global branding	9 Sep. 2017	Hotel Marriott Bhopal	CM
7.	Meeting on Experience sharing on conducting ICT Based Courses at IIT Bombay	12 th September 2017	NITTTR, Bhopal	All Faculty
8.	MOOC Project- Orientation cum Planning Workshop	27 th September 2017	NITTTR, Bhopal	All Faculty
9.	Inter NITTTR workshop to detail out curriculum of Faculty Induction Training Programme (FITP) for Technical Teachers	4-5 January 2018	NITTTR Bhopal	CM, SSK, AAK, KJM
10.	MHRD 65 th Central Advisory Board of Education Meeting (CABE)	15-16 January 2018.	Vigyan Bhavan New Delhi	CM, KJM

E. National and International Conferences/ workshops attended by the faculty members under CPDA and Other.

TABLE 6-9 LIST OF FACULTIES PARTICIPATED IN INTERNATIONAL/NATIONAL CONFERENCES/WORKSHOPS DURING 2017-18

S. No.	Name of Faculty and Designation	Title of Conference
1.	Prof. Deepak Singh Associate Professor	12 th International Conference on "Fixed point Theory and application (ICFPTA)" New Castle, Australia from 24-28/07/2017
2.	Prof. R. G. Chouksey, Professor	Innovation Conference Organised by CII, Bangalore in the month of July, 2017
3.	Prof. Shailendra Singh, Professor	The international conference on "Science and Innovative Engineering (ICSIE 2017)" Rio De Juneiro, Brazil from 27-28/08/2017
4.	Prof. P.K. Purohit Professor	International Conference on "World Data System Asia Oceania Conference 2017" at Kyoto university Japan from 26-29/09/2017
5.	Prof. Alan Sanjay Rocha, Professor	International Conference on "IEEE Global Humanitarian Technology, Conference (GHTC 2017)" at California from 19-22/10/2017
6.	Prof. M.C. Paliwal Associate Professor	1. 19 th International Conference on "Civil Engineering & Environment" at Chicago, U.S.A. from 26-27/10/2017
7.	Prof. A.K. Jain Professor	2. North-eastern Illinois University Chicago, USA 30/10/2017
8.	Prof. A.K. Jain Professor	Golden Jubilee National Seminar on "Promotion of Skills and Technologies for Sustainable Rural Development in India" at NITTTR Chandigarh
9.	Prof. Joshua Earnest Professor	5 th International Conference on "Reanalysis Recent Innovation" (ICR5) Rome Italy from 13-17/11/2017
10.	Prof. Kiran Saxena, Professor	"London International Conference on Education (LICE 2017)" at University of Cambridge, UK 11-14/12/2017
11.	Prof. Atul Mishra Associate Professor	2 nd International Conference on "Future Education Effective" at Rome, Italy from 16-18/11/2017
12.	Prof. V.H. Radhakrishnan, Professor	International conference on "Multidisciplinary Conference", at London, UK from 07-10/11/2017
13.	Prof. Priyanka Tripathi,	International Conference on "Communication and Information

S. No.	Name of Faculty and Designation	Title of Conference
	Associate Professor	Processing (ICCIP 2017) from 24-26/11/2017
14.	Prof. Roli Pradhan, Assistant Professor	1. Annual International Conference on "Social Science, Applied Science Economics and Management, (SASE)" at Tokyo, Japan from 23-24/12/2017 2. Osaka 23rd International Conference on "Business, Economics, Social Science & Humanities (BEAAH)", Osaka, Japan from 28-29/12/2017
15.	Prof. M.A. Rizvi, Associate Professor	28 th International Conference on "Teaching, Education & Learning (ICTEL)" at Dubai, United Arab Emirates from 20-21/12/2017
16.	Prof. A.S. Walkey, Associate Professor	7 th International Conference on "Power System (ICPS-2017)" at Pune, Maharashtra, India from 21-23/12/2017
17.	Prof. Nishith Dubey, Professor	4 th International Conference on Industrial Engineering ICIE-2017, NIT, Surat, Dec 2017
18.	Prof. Susan S. Mathew, Associate Professor	Two days Inter-NITTR workshop to detail out curriculum of Faculty Induction Training Programme (FITP) aligning with the National Training Policy of AICTE for Technical Teachers on 4 and 5 January 2018
19.	Prof. B.L. Gupta Professor	6 th International Conference on "Information and Education Technology (ICIET 2018)" at Osaka, Japan from 06-08/01/2018
20.	Prof. D. S. Karaulia Professor	6 th International Conference on "Information and Education Technology (ICIET 2018)" at Osaka, Japan from 06-08/01/2018
21.	Prof. Rajesh Kumar Dixit, Professor	"Asia-Pacific Conference on Education, Teaching and Technology -Edu Teach 2018" at Bangkok, Thailand from 25-26/01/2018
22.	Prof. Subrat Roy, Professor	"Asia-Pacific Conference on Education, Teaching and Technology -Edu Teach 2018" at Bangkok, Thailand from 25-26/01/2018
23.	Prof. Sanjay Agrawal, Professor	8 th International Conference on "Advances in Computing, Electronics and Electrical Technology-CEET 2018" at Kuala Lumpur, Malaysia from 03-04/02/2018
24.	Prof. Nishith Dubey, Professor	12 th International Conference on Entrepreneurship, Innovation and Global Governance for Global Leadership, PIMR, Indore, Feb 2018
25.	Prof. J.P. Tegar, Professor	3 rd International Conference on "Teaching, Education & Learning (ICTEL)2018" at Dubai, United Arab Emirates from 18-19/02/2018
26.	Prof. Hussain Jeevakhan, Assistant Professor	60 th ICFA Beam Dynamics Workshop on "Future Light Sources (FLS 2018)" at Shanghai, China from 05-09/03/2018
27.	Dr. V. D. Patil	STTP on "Transboundary Water Resources-Conflict to Co-Operation" at National Water Academy, Pune during 5-9 March, 2018
28.	Dr. S. S. Kedar, Associate Professor	Attended a course on "Technical Vocational Education & Training (TVET): The Singapore Experience", at ITE, Singapore under the Singapore Cooperation Programme Training Award/ Small Island Developing States Technical Cooperation Programme sponsored by Ministry of Foreign Affairs, Singapore and CPSC, Manilla from 5-9 March, 2018
29.	Prof. Chanchal Mehra, Associate Professor	Attended a course on "Technical Vocational Education & Training (TVET): The Singapore Experience", at ITE, Singapore under the Singapore Cooperation Programme Training Award/ Small Island Developing States Technical Cooperation Programme sponsored by Ministry of Foreign Affairs, Singapore and CPSC, Manilla from 5-9 March, 2018
30.	Prof. Anjana Tiwari,	International conference on "Social Sciences and Humanities" at

S. No.	Name of Faculty and Designation	Title of Conference
	Assistant Professor	University of Nevada, Las Vegas, USA from 12-16/03/2018
31.	Prof. Alan Sanjay Rocha, Professor	9 th International Conference on “Education Training and Informatics (ICETI 2018)” at Florida, USA from 13-16/03/2018
32.	Prof. K. James Mathai, Associate Professor	International Academic Conference on “Teaching and E-learning (IAC-TLEI 2018)” at Budapest, Hungary from 16-17/03/2018
33.	Prof. R.K. Dixit, Professor	MIRDEC-7th, International Academic Conference on “Social Science, Multidisciplinary and Globalization Studies” at Madrid, Spain from 26-29/03/2018
34.	Prof. Sandip S. Kedar, Associate Professor	MIRDEC-7th, International Academic Conference on “Social Science, Multidisciplinary and Globalization Studies” at Madrid, Spain from 26-29/03/2018
35.	Prof. Atul Mishra, Associate Professor	7 th International Conference on “Informatics, Environment, Energy & Its Applications (IEEE 2018)” at Beijing, China from 28-31/03/2018
36.	Prof. A.S. Walkey, Associate Professor	20 th International Conf. on “Power Engineering, Power Systems and Power Plants (ICPEPSP 2018)” at Osaka, Japan from 29-30/03/2018
37.	Prof. Ajay K. Sarathe, Associate Professor	20 th International Conference on “Industrial and Production Engineering (ICIPE 2018)” at Osaka, Japan from 29-30/03/2018
38.	Prof. R.B. Shivagunde, Professor	International Conference on “Psychology, Language and Teaching (ICPLT) 2018 at Tokyo, Japan from 29-30/03/2018
39.	Prof. C.S. Rajeshwari, Professor	International Conference on “Psychology, Language and Teaching (ICPLT) 2018 at Tokyo, Japan from 29-30/03/2018
40.	Prof. Anjali Potnis, Assistant Professor	International Conference on “Psychology, Language and Teaching (ICPLT) 2018 at Tokyo, Japan from 29-30/03/2018

TABLE 6-10 LIST OF FACULTY/ STAFF SPONSORED FOR TRAINING AND DEVELOPMENT DURING 2017-18

S. No.	Name & Designation	Title of Workshop	Place and Duration
1.	Prof A. K. Sarathe, Associate Professor	Conduct Rules and Disciplinary Proceedings	Institute of Good Governance, New Delhi, 19 June 2017
2.	Smt. Kavita Dhote, LDC Smt. Anita Lala, Sr. Stenographer Sri Sanjeev Kaushal, UDC Md. Sharique Naseem, LDC	“GFRs 2017”	ISTM, New Delhi 18 th August 2017
3.	Shri Parivesh Kasturia, Programmer Shri H.S. Rao, Sr. Stenographer, Shri Dharmraj Yadav, LDC, Shri Raju Thorat, Store Keeper, Shri Girish V. Nair, Jr. Stenographer	Public Procurement under GFR 2017, including e-Procurement and GeM	ISTM, New Delhi 28-29th August 2017
4.	Dr. V.H. Radhakrishnan, Professor	To suggest modalities for implementation of the scheme of training policy for technical teachers and scheme for starting mandatory certificate course for teachers at entry level.	AICTE Headquarters, New Delhi

S. No.	Name & Designation	Title of Workshop	Place and Duration
5.	Shri Sanjay Dongre, Lab Technician	PLC	CRISP, Bhopal 27 Nov to 1 Dec 2017
6.	Shri C.K. Chavan, Media Designer/Draughtsman	AutoCAD	CRISP, Bhopal 11-15 Dec. 2017
7.	Prof. A.S. Walkey	Workshop for Liaison Officers of SC/ST	ISTM, New Delhi 8-9 Jan 2018
8.	Dr. V.H. Radhakrishnan, Professor Dr. B.L. Gupta, Professor Dr. Joshua Earnest, Professor Dr. Sanjay Agrawal, Professor	Inter-NITTTR workshop for Curriculum Development of AICTE faculty Induction Training Programme aligning with the National Policy of AICTE for Technical Teachers	NITTTR, Chennai from 18-19 Jan 2018
9.	Prof. A. A. Khajanchee Associate Professor	Inter-NITTTR National Workshop on MOOCs at	NITTTR Bhopal from 4-5/01/2018
10.	Dr. S. S. Kedar, Associate Professor	Inter-NITTTR National Workshop on MOOCs at	NITTTR Bhopal from 4-5/01/2018

6.5 राजभाषा गतिविधियाँ

The Rajbhasha Karyanvayan samiti conducted various Rajbhasha activities within the institute and also participated in the Rajbhasha programmes conducted outside. The prominent programmes are as follows:

1. संस्थान की राजभाषा हिंदी के प्रगामी प्रयोग से संबंधित तिमाही, अप्रैल-जून, 2017 की प्रगति रिपोर्ट राजभाषा विभाग की वेबसाइट पर अपलोड की गई |
2. 22-26 मई, 2018 हिन्दी टंकण का प्रशिक्षण कार्यक्रम आयोजित किया गया | कार्यक्रम के समन्वयक प्रो. आर के कपूर थे | इसमें संस्थान के 15 प्रतिभागी शामिल हुए |
3. 29 मई, 2017 को समिति अध्यक्ष महोदय डॉ. सी थंगराज की अध्यक्षता में संस्थान की राजभाषा कार्यान्वयन समिति की 76वीं तिमाही बैठक संपन्न हुई |
4. नराकास की छमाही बैठक 09 अगस्त 2017 नराकास क्र 01 द्वारा राजभाषा हिन्दी में उत्कृष्ट कार्य करने वाले सदस्य कार्यालय के चयन हेतु प्रतियोगिता का आयोजन 15/12/2018 को किया गया | राजभाषा हिन्दी में उत्कृष्ट कार्य करने वाले सदस्य कार्यालय को चल-शील्ड प्रदान करने का निर्णय लिया गया जिससे हर बार अन्य सदस्य कार्यालय इसे प्राप्त करने हेतु राजभाषा हिन्दी में उत्कृष्ट कार्य करने हेतु उत्साहित हो एवं इसे पाने की होड़ बनी रहे | वर्ष 2017 में सेंट्रल फ्रंटियर, भारत-तिब्बत सीमा पुलिस को चल-शील्ड का विजेता घोषित किया गया | अन्य सदस्य कार्यालयों जिनसे प्रतियोगिता में प्रतिभागिता हेतु प्रविष्टियां प्राप्त हुई थी सभी को प्रशस्ति पत्र देकर सम्मानित किया गया |
5. कार्यशाला "नेतृत्व क्षमता विकास" 10-11 अगस्त 2017 को आयोजित की गई | राजभाषा कार्यान्वयन समिति के तत्वावधान में प्रबंधन विभाग द्वारा आयोजित कार्यशाला के समन्वयक प्रो. बी.एल.गुप्ता एवं प्रो.आशीष देशपांडे थे | कार्यशाला में संस्थान के 11 प्रतिभागी शामिल हुए |
6. संस्थान द्वारा सूचना के अधिकार पर जागरूकता कार्यक्रम का 21 अगस्त 2017 को आयोजन किया गया | श्री अखिलेश अर्गल, निदेशक अटल बिहारी बाजपेयी इंस्टिट्यूट ऑफ गुड गवर्नेंस एंड पालिसी एनालिसिस, भोपाल को इस कार्यक्रम के मुख्य वक्ता के रूप में आमंत्रित किया गया था | श्री अर्गल ने बहुत ही प्रभावी रूप में पावर पॉइंट की सहायता से सारगर्भित प्रस्तुतिकरण दिया |

7. हिंदी पखवाडा का आयोजन 11 सितंबर, 2017 से 25 सितंबर, 2017 |
 - 11 सितंबर, 2017 - हिंदी पखवाडा का आरम्भ हुआ |
 - 14 सितंबर, 2017 - हिंदी दिवस व प्रश्न मंच का आयोजन किया गया |
 - 15 सितंबर, 2017 - हिन्दी निबंध प्रतियोगिता
 - 18 सितंबर, 2017 - वाद - विवाद प्रतियोगिता
 - 19 सितंबर, 2017- श्रुत-लेखन - (डिक्टेशन) प्रतियोगिता
 - 20 सितंबर, 2017- तात्कालिक भाषण प्रतियोगिता
 - 21 सितंबर, 2017- तात्कालिक भाषण प्रतियोगिता
 - 25 सितंबर, 2017 - स्वरचित गज़ल / कविता-पाठ प्रतियोगिता
8. राजभाषा कार्यान्वयन समिति की 77 वीं बैठक, 12 सितंबर, 2017 को समिति अध्यक्ष महोदय डॉ. सी. थंगराज की अध्यक्षता में संपन्न हुई |
9. 25 सितंबर, 2017 - पंडित दीनदयाल उपाध्याय शताब्दी व्याख्यान का आयोजन किया गया |
10. संस्थान की राजभाषा हिंदी के प्रगामी प्रयोग से संबंधित तिमाही, जुलाई-सितंबर, 2017 की प्रगति रिपोर्ट राजभाषा विभाग की वेबसाइट पर अपलोड की गई |
11. 31 अक्टूबर, 2017 - राष्ट्रीय एकता दिवस का आयोजन किया गया |
12. 11 नवम्बर, 2017 को मौलाना अब्दुल कलाम के जन्मदिवस को शिक्षा दिवस के रूप में मनाया गया |
13. राजभाषा कार्यान्वयन समिति के तत्वावधान में 13-14 नवम्बर, 2017 को "आपदा प्रबंधन" विषय पर कार्यशाला आयोजित की गई | कार्यशाला में कुल 16 प्रतिभागी 09 प्रतिभागी संस्थान से व 07 प्रतिभागी अन्य केन्द्रीय कार्यालय से शामिल हुए |
14. 04-05 दिसंबर, 2017 को राजभाषा कार्यान्वयन समिति के तत्वावधान में "नोटशीट/पत्र-लेखन व अन्य मूलभूत प्रशासकीय प्रक्रियाएं" विषय पर हिंदी कार्यशाला का आयोजन किया गया | कार्यशाला के समन्वयक प्रशासकीय अधिकारी श्री डी. के. तिवारी थे | कार्यशाला में प्रो. किरण सक्सेना, प्रो संजय अग्रवाल एवं श्रीमती अनीता लाला द्वारा योगदान प्रदान किया गया | कार्यशाला में कुल 19 प्रतिभागी, 10 प्रतिभागी संस्थान से व 09 प्रतिभागी अन्य केन्द्रीय कार्यालय से शामिल हुए |
15. संस्थान की राजभाषा कार्यान्वयन समिति की 78 वीं तिमाही बैठक, 08 दिसंबर 2017 को संपन्न हुई |
16. संस्थान की राजभाषा हिंदी के प्रगामी प्रयोग से संबंधित तिमाही, अक्टूबर-दिसंबर, 2018 की प्रगति रिपोर्ट राजभाषा विभाग की वेबसाइट पर अपलोड की गई |
17. 12 जनवरी, 2018 को राजभाषा विभाग गृह-मंत्रालय द्वारा आयोजित नगर राजभाषा समिति अध्यक्षों एवं राजभाषा अधिकारियों का संयुक्त क्षेत्रीय सम्मेलन चेम्बूर, मुंबई में आयोजित किया गया | इसमें संस्थान के निदेशक/अध्यक्ष महोदय डॉ. सी. थंगराज एवं सदस्य सचिव श्रीमती शोभा लेखवानी द्वारा प्रतिभागिता की गई |
18. 12-13 फरवरी, 2018 को राजभाषा कार्यान्वयन समिति के तत्वावधान में "सामान्य वित्तीय एवं आयकर संबंधी नियम" विषय पर हिंदी कार्यशाला का आयोजन किया गया | कार्यशाला का समन्वयन संस्थान के लेखा विभाग की ओर से श्रीमती ज्योत्सना ताम्बे द्वारा किया गया | कार्यशाला में प्रो. किरण सक्सेना, प्रो. आशीष देशपांडे, श्री डी.के. तिवारी द्वारा योगदान प्रदान किया गया | कार्यशाला में 10 प्रतिभागी संस्थान से व 04 प्रतिभागी अन्य केन्द्रीय कार्यालय से शामिल हुए | कुल 14 प्रतिभागियों ने कार्यशाला का लाभ प्राप्त किया |
19. 08 फरवरी, 2018 को सी.बी.आई. कार्यालय, भोपाल में "कम्प्यूटर में राजभाषा एवं यूनिकोड का प्रयोग" विषय पर हिन्दी कार्यशाला में संस्थान के कंप्यूटर विभाग के विभागाध्यक्ष प्रो. एम.ए. रिजवी ने विषय विशेषज्ञ एवं श्री धीरज पांडे ने सहायक के रूप में अपनी सेवाएं प्रदान कीं |
20. 16 फरवरी, 2018 को, योजना एवं वास्तु विद्यालय, भोपाल में "कम्प्यूटर में राजभाषा एवं यूनिकोड का प्रयोग" विषय पर हिन्दी कार्यशाला हेतु प्रो. एम. ए. रिजवी जी ने विषय विशेषज्ञ के रूप में अपनी सेवाएं प्रदान कीं | उनके साथ श्री धीरज पांडे तकनीकी सहायक के रूप में उपस्थित रहे |

21. संस्थान की राजभाषा हिंदी के प्रगामी प्रयोग से संबंधित तिमाही, जनवरी-मार्च, 2018 की प्रगति रिपोर्ट राजभाषा विभाग की वेबसाइट पर अपलोड की गई |

6.6 Implementation of Right to information Act, 2005

Under the provisions of the Right of Information Act, 2005 the details of applications received, disposed-off and denied during the 2017-18 are given as under:

No. of applications received	No. of application disposed off	No. of cases in which information denied
39	39	00

6.7 Implementation of Reservation Policy for SCs STs and OBCs

As per the provisions of the Reservation Policy for appointment of faculty/ staff is in place, however, no appointments / recruitments have been made during the ensuing year.

7. Esteemed Visitors

The following esteemed persons visited the Institute/ Extension Centres during the period:

TABLE 7-1: LIST OF VISITORS DURING THE PERIOD 2017-18

S. No.	Name of the Visitor
1.	Prof. (Dr.) Usha Natesan, Advisor-I, AICTE, New Delhi
2.	Dr. M.P. Poonia, Vice Chairman, AICTE, New Delhi
3.	Prof. Navin Seth, Hon'ble VC, GTU.
4.	Dr. M. K. Verma, Hon'ble VC, CSVTU, Durg
5.	Dr. S. K. Gupta, Hon'ble VC, RGPV, Bhopal
6.	Mr. Deepak Pathak, Director, Ministry of External Affairs (Programme Revenue of ITEC), Govt. of India
7.	Shri C.P. Sharma, Managing Director, M/s Daulat Ram Engineering Services Private Limited, Obedullah Ganj, Raisen
8.	Dr. Mangesh V. Joshi, Founder CEO, Sanrachana, Nashik, Maharashtra
9.	Mr. Vivek Acharya, Director, DTE, Chhattisgarh
10.	Prof. Vivek B. Kamat, Director, DTE, Goa
11.	Prof. Deepak B. Phatak, IIT, Bombay
12.	Prof. Kannan M. Moudgalya, IIT, Bombay
13.	Dr. M. V. Karkare, Director, School of Engg. & Technology, GTU, Ahmedabad
14.	Shri. Sasikumar
15.	Shri. Dhananjay Singh
16.	Dr. Veerendra Kumar, DTE, MP
17.	Dr. Avanish Srivastava, Director, EMPRI, CSIR, Bhopal
18.	Prof. (Dr.) Tapan R. Mohanty, Chairperson, NLIU, Bhopal
19.	Shri. Akhilesh Argal, Director, Atal Bihari Bajpai Institute of Good Governance and Policy, Bhopal
20.	Prof. R. P. Khambayat, Joint Director, PSSCIVE, Bhopal
21.	Mr. Bindra, Vice President, CII, Bhopal
22.	Mr. Uparite, CII, Bhopal
23.	Dr. M. F. Qureshi, Additional Director, DTE, Chhattisgarh

24.	Mr. Amitabh Dubey, BHEL, Bhopal
25.	Mr. A. K. Agarwal, RVIM, Vadodara
26.	Dr. A. K. Bishwas, IISC, Bhopal
27.	Mr. Mukesh Sharma, CRISP, Bhopal
28.	Ms. Nimita Raut, L & T Ltd., Mumbai
29.	Mr. J. D. Bagul, MSME, Aurangabad
30.	Mr. Sunil Sanap, MSME, IDEM, Mumbai
31.	Dr. Ganesh A. Joshi, CRC, Bhopal
32.	Shri. Santosh J. CPRI, Bhopal
33.	Prof. I. B. Chatti, RIE, Bhopal
34.	Dr. Mukesh Pandey, RGPV, Bhopal
35.	Dr. Sandeep Kadve, CEO
36.	Mr. Navneet Singh Chatwal, CEDMAP, Bhopal
37.	Mr. L. M. Belwal
38.	Dr. R. Shreedhar
39.	Mr. D. B. Sahu, MPCON, Bhopal
40.	Mr. Sudhir Jain, MPCON, Bhopal
41.	Mr. Vinay Verma, EDI, Bhopal
42.	N. Dube, Ankur Sangal (ISO External)
43.	Mr. Harish Singh Chauhan, Deputy Director, Rajbhasha Regional Office, Bhopal
44.	Mr. Jeevan Lal, Assistant Director, Rajbhasha, Higher Education, New Delhi
45.	Prof. K.K. Pathak, Deptt. of Civil Engg., IIT, Banaras
46.	Dr. Atul Pandey, APS University, Rewa

8. List of Faculty & Officers

S. No.	Departments	Faculty
1.	Applied Science	<ol style="list-style-type: none"> 1. Dr. Abhilash Thakur, Head (Till 29/11/2017) 2. Dr. P. K. Purohit 3. Dr. Deepak Singh, Head (From 30/11/2017) 4. Dr. Hussain Jeevakhan 5. Dr. Bashirullah Shaikh
2.	Civil and Environment Engineering	<ol style="list-style-type: none"> 1. Dr. A. K. Jain, Head 2. Dr. V. H. Radhakrishnan 3. Dr. J. P. Tegar 4. Dr. R.K. Dixit 5. Dr. Subrat Roy 6. Prof. M.C. Paliwal 7. Prof. V. D. Patil
3.	Computer Engineering & Application	<ol style="list-style-type: none"> 1. Dr. M. A. Rizvi, Head 2. Dr. D. S. Karaulia 3. Dr. Sanjay Agrawal 4. Dr. Shailendra Singh 5. Dr. R.K. Kapoor 6. Dr. K. James Mathai

4.	Education & Research	1. Dr. Ajit Dixit, Head 2. Dr. Kiran Saxena 3. Dr. Rajesh P. Khambayat (On Deputation from 09/05/2017) 4. Dr. Anjana Tiwari
5.	Electronic Media	1. Prof. (Smt) A. A. Khajanchee, Head 2. Dr. Prabhakar Singh 3. Dr. S.S. Kedar
6.	Electrical and Electronics Engineering	1. Prof. (Smt) Susan S. Mathew, Head 2. Dr. Joshua Earnest 3. Dr. C. S. Rajeshwari 4. Dr. A. S. Walkey 5. Dr. Anjali Potnis 6. Prof. Sanjeet Kumar
7.	Management	1. Dr. Aashish Deshpande, Head (Till 19/11/2017) 2. Dr. B.L. Gupta 3. Dr. Parag Dubey, Head (From 20/11/2017) 4. Dr. Roli Pradhan
8.	Mechanical Engineering	1. Dr. (Smt) Vandana Somkuwar, Head 2. Dr. K. K. Jain 3. Dr. S. K. Pradhan 4. Dr. A.K. Sarathe
9.	Vocational Education and Entrepreneurship Development	1. Prof. Anju Rawlley, Head 2. Prof. R. G. Chouksey 3. Dr. Peeyush Verma 4. Dr. Nishith Dubey 5. Prof. (Smt) Chanchal Mehra 6. Dr. Atul Mishra

NITTR EXTENSION CENTRES - COORDINATORS

1.	Ahmedabad	Dr. S. K. Gupta
2.	Chhattisgarh	Dr. Parag Dubey
3.	Goa	Dr. Alan Sanjay Rocha
4.	Pune	Dr. R. B. Shivagunde

OFFICERS


1.	Shri Rajeev Gohil	Production Manager
2.	Shri Abhay Dubey	System Analyst
3.	Shri Prakash Narayan Hardaha	System Analyst
4.	Shri D. K. Tiwari	Administrative Officer
5.	Shri Mahadev Savadatti	Sr. Librarian
6.	Dr. Izhar Ahmed	Scientific Officer
7.	Shri Jagesh Chandra Mishra	Programmer
8.	Shri Parivesh Kasturia	Programmer
9.	Shri Ashish Chtakwar	Programmer

9. Faculty and Officers and their Key Areas of Specialization

Department of Applied Sciences


	<p>डॉ. ठाकुर, अभिलाष Dr. Thakur, Abhilash Associate Professor & Head (Till 29/11/2017) E-mail : athakur@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Medicinal Chemistry. ❖ Molecular Modeling. ❖ Soft Computational developments in Chem. - Bioinformatics.
	<p>डॉ. पुरोहित, पी.के. Dr. Purohit, P.K. Professor E-mail : pkpurohit@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer Aided Instructional Design ❖ Science Education and Research ❖ Bio-diesel, Disaster Management, Industrial Safety. ❖ Nano Technology, Hazard Communication, GPS, Remote Sensing
	<p>डॉ.सिंह, दीपक Dr. Singh, Deepak Associate Professor & Head (From 30/11/2017) E-mail : dsingh@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Functional Analysis ❖ Non-Linear Programming Problems ❖ Science Education & Research ❖ Training of Teachers
	<p>डॉ. हुसैन, जीवाखान Dr. Hussain, Jeevakhan Assistant Professor E-mail : hjeevakhan@nitttrbpl.ac.in</p>	<p>Key Areas</p> <ul style="list-style-type: none"> ❖ FEL Theory ❖ PWM method ❖ Harmonic undulator ❖ EM undulator ❖ Instrumentation ❖ Nanotechnology
	<p>डॉ. शेख बशीरउल्ला Dr. Shaik, Bashirulla Assistant Professor E-mail : bshaik@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Molecular Modeling, Toxicity Prediction ❖ Computer Aided Drug Design ❖ Medicinal Chemistry ❖ Theoretical Chemistry & QSAR studies.


Department of Civil and Environmental Engineering

	<p>डॉ. जैन, ए.के. Dr. Jain, A.K. Professor & Head E-mail : akjain@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Rural development ❖ Management of community development thrusts ❖ Appropriate technology development
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	<p>डॉ. राधाकृष्णन, वी.एच. Dr. Radhakrishnan, V.H. Professor E-mail : vhradhakrishnan@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Management of Educational Projects & Programmes, ❖ Curriculum Design, Development & Evaluation and Accreditation ❖ Competency-based Education ❖ Instructional System Design & Devt.
	<p>डॉ. टेगर, जे.पी. Dr. Tegar, J.P. Professor E-mail : jptegar@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Laboratory development ❖ Training of teachers in CAD ❖ Conduct of induction programmes ❖ Curriculum design and development ❖ Civil engineering
	<p>डॉ. दीक्षित आर.के. Dr. Dixit R.K. Professor E-mail : rkdixit@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Design of distance & continuing education systems ❖ Manpower planning ❖ Computer aided instructional design
	<p>डॉ. रॉय, सुब्रत Dr. Roy, Subrat Professor, E-mail : sroy@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Pavement Materials ❖ Pavement Design ❖ Pavement Evaluation
	<p>प्रो. पालीवाल, एम. सी. Prof. Paliwal, M.C. Associate Professor E-mail : mcpaliwal@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Civil Engineering ❖ Maintenance of civil works ❖ Training of Trainers
	<p>डॉ. पाटिल, वी.डी. Dr. Patil, V.D. Associate Professor Extn. Centre, Pune E-mail : vdpatil@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Curriculum Design & Development ❖ Training of Trainers & Teachers ❖ Instructional Design and Development ❖ Civil Engineering

Department of Computer Engineering and Applications

	<p>डॉ. रिज़वी, एम. ए. Dr. Rizvi M.A. Associate Professor & Head E-mail : marizvi@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer education ❖ CBT packages production ❖ Programming ❖ Curriculum Development ❖ Network Routing ❖ Learning Resource Development
	<p>डॉ. करौलिया, डी. एस. Dr. Karaulia, D.S. Professor E-mail : dskaraulia@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Teaching PG & undertaking research in Computer Science & Applications, and Educational Technology ❖ Planning, designing, implementing & evaluation of multilaterally funded projects in technical education ❖ Curriculum development
	<p>डॉ. अग्रवाल, संजय Dr. Agrawal, Sanjay Professor E-mail : sagrawal@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer aided instructional design ❖ CBT packages production ❖ Computer education ❖ Curriculum design in new technology ❖ Web Technology ❖ Knowledge management in Education
	<p>डॉ. सिंह, शैलेन्द्र Dr. Singh, Shailendra Professor E-mail : ssingh@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Machine Learning ❖ Cyber Security ❖ Programming Languages ❖ Software Development ❖ Design & Development of Curriculum. ❖ Computer Education & Research
	<p>डॉ. कपूर, आर.के. Dr. Kapoor, R.K. Associate Professor E-mail : rkkapoor@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer Education ❖ CBT packages production ❖ Web page designing and Web Application Development ❖ Computer networking ❖ Instructional resources design & development.

	<p>डॉ. मथाई के. जेम्स Dr. Mathai, K. James Associate Professor E-mail : kjmathai@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Online Education & Training ❖ Computer education & training ❖ Instructional resources design ❖ Curriculum design & develop. ❖ Computer aided instructional design ❖ Training of teachers ❖ Software System Design& Development
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Department of Education & Research

	<p>डॉ. दीक्षित, अजीत Dr. Dixit, Ajit Associate Professor & Head E-mail : adixit@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Training of Teachers ❖ Soft skills development ❖ Electrical Engineering
	<p>डॉ. (श्रीमती) सक्सैना के., Dr. (Mrs.) Saksena, Kiran Professor E-mail : kiransaksena@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Training of teachers in Technical Education and research methodology ❖ Research on Issues in Technician Education ❖ Personality Development
	<p>डॉ. खम्बायत, राजेश पी. Dr. Khambayat, Rajesh P. Professor (On Deputation from 09/05/2017) E-mail : rpkhambayat@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Capacity building of TVET Educators, ❖ Curriculum Development, ❖ Education Research and Development, ❖ Digital Media Training Package Development, ❖ Youth Employability & Sustainable Development
	<p>डॉ. तिवारी अन्जना Dr. (Mrs.) Tiwari, Anjana Assistant Professor E-mail : atiwari@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Communication skills ❖ Personality Development ❖ English Language ❖ English Literature

Department of Electronic Media


	<p>प्रो. (श्रीमती) खजांची, ए. ए . Prof. (Mrs.) Khajanchee, A. Associate Professor & Head E-mail : aakhajanchee@nittrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Instructional system design & development ❖ Training of Teachers ❖ Developing appropriate media ❖ Video programmes production ❖ e-content Development ❖ Curriculum development
	<p>प्रो. सिंह प्रभाकर Dr. Singh, Prabhakar Professor E-mail : psingh@nittrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Educational Television ❖ e-content Development ❖ Script writing ❖ Advertising ❖ Media Research
	<p>डॉ. केदार, एस. एस. Dr. Kedar, S.S. Associate Professor E-mail : sskedar@nittrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Instructional system design & development ❖ Training of Teachers ❖ Video programmes production ❖ Multimedia & e-content Development ❖ Animation Development ❖ Curriculum development



Department of Electrical & Electronic Engineering

	<p>प्रो. (श्रीमती) मैथ्यू, सुसन एस. Prof. (Mrs.) Mathew, Susan S. Associate Professor & Head E-mail : ssmathew@nittrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Training of Teachers ❖ Development of laboratory manuals and assessment systems ❖ Curriculum design in new technologies ❖ Laboratory management ❖ Electrical and electronics engineering
	<p>डॉ. अर्नेस्ट, जोशुआ Dr. Earnest, Joshua Professor E-mail : jearnest@nittrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Wind Power & Renewable Energy ❖ Competency-based Education ❖ Curriculum Design & Development ❖ Instructional Design & Development ❖ Development of laboratories, manuals, assessment systems ❖ Electrical Machines

	<p>डॉ. राजेश्वरी, सी. एस. Dr. (Mrs.) Rajeshwari, C.S. Professor E-mail : csrajeshwari@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Electrical Machines ❖ CAD of Electrical Machines ❖ Advanced Electrical Drives ❖ Control Systems ❖ Power Generation, Transmission & Distribution ❖ Energy Conservation and Energy Efficiency in Electrical Utilities
	<p>प्रो. वाल्के, ए. एस. Dr. Walkey, A.S. Associate Professor E-mail : aswalkey@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Electrical Engineering ❖ Electrical and Electronic equipment maintenance ❖ Laboratory development
	<p>डॉ. पोतनीस अंजली Dr. (Mrs.) Potnis, Anjali Assistant Professor E-mail : apotnis@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Digital Signal Processing ❖ Digital Image processing ❖ Communication and Instrumentation
	<p>श्री कुमार संजीत Prof. Kumar, Sanjeet Assistant Professor E-mail : skumar@nitttrbpl.ac.in</p>	<p>Key Areas</p> <ul style="list-style-type: none"> ❖ Electronics Devices ❖ Microprocessor and Microcontroller ❖ VLSI technology ❖ Embedded system design


Department of Management

	<p>डॉ. देशपांडे आशीष Dr. Deshpande, Aashish Professor & Head (Till 19/11/2017) E-mail : adeshpande@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Financial Management ❖ Energy and Environmental Economics ❖ Climate Change, Scenario Development and Policy Analysis ❖ International Finance
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	<p>डॉ. गुप्ता, बी. एल. Dr. Gupta, B. L. Professor E-mail : blgupta@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Human Resource Development ❖ Organization diagnosis, evaluation and accreditation ❖ Visioning and Strategic planning ❖ Performance appraisal and Organizational Development, ❖ Policy formulation and analysis ❖ Project management
	<p>डॉ. (श्रीमती) प्रधान रौली Dr. (Mrs.) Pradhan, Roli Assistant Professor E-mail : rpradhan@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Bankruptcy prediction ❖ Security analysis ❖ Portfolio management ❖ Corporate Finance ❖ Risk Management ❖ Management Accounting ❖ Economics


Department of Mechanical Engineering

	<p>प्रो. (श्रीमती) सोमकुंवर, वन्दना Dr. (Mrs.) Somkuwar, Vandana Associate Professor & Head E-mail : vsomkuwar@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Laboratory Development ❖ Mechanical Engineering ❖ A/C maintenance ❖ Mechatronics ❖ Teacher Training ❖ Computer aided drafting and design
	<p>डॉ. जैन, के.के. Dr. Jain, K.K. Professor E-mail : kkjain@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Production technology ❖ Teacher Development ❖ Laboratory Development ❖ Laboratory Innovation ❖ CNC Technology ❖ Automobile Engineering ❖ Instructional System Design
	<p>डॉ. प्रधान, एस. के. Dr. Pradhan, S. K. Associate Professor E-mail : spadhan@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer Aided Design & Finite Element Model Updating ❖ Robotics ❖ Virtual Lab Practices ❖ Curriculum Design & Development ❖ Training of Trainers & Teachers ❖ Competency based supervisory skill development




	<p>डॉ. सराठे, ए. के. Dr. Sarathe, A.K. Associate Professor E-mail : aksarathe@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ CNC Programming & Operations ❖ Workshop Maintenance ❖ Design & Development of low-Cost teaching aids ❖ Purchase & Stores Management ❖ Curriculum Design & Development ❖ Competency based supervisory skill development
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Department of Vocational Education & Entrepreneurship Development

	<p>डॉ. (श्रीमती) रौले, अंजू Dr. (Mrs.) Rawley, Anju Professor & Head E-mail : arawley@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Curriculum Development ❖ Laboratory Development ❖ Students' Assessment and Evaluation ❖ Instructional Material Development ❖ Training of Trainers
	<p>प्रो. चौकसे, आर. जी. Prof. Chouksey, R.G. Professor E-mail : rgchouksey@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Vocational Education & Training ❖ Curriculum Development ❖ Entrepreneurship Development
	<p>प्रो. वर्मा, पीयूष Prof. Verma, Peeyush Professor E-mail : pverma@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Vocational Education and Entrepreneurship development ❖ Stress management and wellness ❖ Design of distance education and continuing education system
	<p>डॉ. दुबे, निशीथ Dr. Dubey, Nishith Professor E-mail : ndubey@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Entrepreneurship development ❖ Intrapreneurship ❖ Corporate entrepreneurship
	<p>प्रो. (श्रीमती) मेहरा, चंचल Prof. (Mrs.) Mehra, Chanchal Associate Professor E-mail : cmehra@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Mechanical engineering ❖ Training of teachers ❖ Community / Rural development ❖ Vocational Education

	<p>डॉ. मिश्रा, अतुल Dr. Mishra, Atul Associate Professor E-mail : amishra@nitttrbpl.ac.in</p>	<p>Key Areas</p> <ul style="list-style-type: none"> ❖ Environment ❖ Corporate Relations ❖ Entrepreneurship Development ❖ Skill Development
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NITTR Extension Centres: Coordinators

	<p>डॉ. गुप्ता, एस. के. Dr. Gupta, S. K. Professor Extn. Centre, Gujarat E-mail : skgupta@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Student Assessment ❖ Interaction with Industry ❖ Quality Assurance in Education ❖ QMS & Accreditation ❖ Self-Assessment ❖ Curriculum Development ❖ Transformers and Power Engineering
	<p>डॉ. दुबे पराग Dr. Dubey, Parag Professor & Head, DM (From 20/11/2017) Extn. Centre, Chhattisgarh E-mail : pdubey@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Marketing Management ❖ Strategic Management ❖ Green Marketing ❖ Marketing of Forest Products
	<p>प्रो. रोचा, एलन संजय Dr. Rocha, Alan Sanjay Professor Extn. Centre, Goa E-mail: asrocha@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer Aided Design and Manufacturing ❖ Automobile Engineering ❖ Renewable Energy Hybrid Systems ❖ Management Development ❖ Training of Teachers ❖ Instructional System design
	<p>डॉ. शिवगुन्डे, आर. बी. Dr. Shivagunde, R. B. Professor E-mail : rbshivagunde@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Quality Management -TQM, Six Sigma and QC ❖ Leadership Development ❖ Planned Change and innovations ❖ Systems development, IB, OD and Marketing ❖ Project management ❖ Industrial consultancy

Officers

	<p>श्री गोहिल, राजीव Shri. Gohil, Rajeev Production Manager E-mail : rgohil@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Film Direction ❖ Camera operation of any camera including the Film and Video. ❖ Script writing for films. ❖ Teaching of fundamentals of Media and Mass communication, body language, History, Aesthetics and Techniques of Film
	<p>श्री दुबे, अभय Shri. Dubey, Abhay System Analyst E-mail : adubey@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Computer Networking & Maintenance ❖ Design & establishment of Computer labs ❖ Software Projects Design & Implementation ❖ Maintenance application systems
	<p>श्री हरदाहा, प्रकाश नारायण Shri. Hardaha, Prakash Narayan System Analyst E-mail : pnharda@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ IIT planning and development, Information Engineering ❖ Web Based Data Collection & Processing, Project Documentation, Unified Modelling Language
	<p>श्री तिवारी, डी. के. Shri. Tiwari, D.K. Administrative Officer E-mail : dktiware@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Procurement of goods and stores ❖ Managing and Control of budget ❖ Financial Management ❖ Facilitating Audit
	<p>श्री सवादत्ती, महादेव Shri. Savadatti, Mahadev Sr. Librarian E-mail : msavadatti@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Library Management ❖ Procurement of Books, Magazines and Journals ❖ Facilitating Readers

	<p>डॉ. अहमद, इजहार Dr. Ahmed, Izhar Scientific Officer E-mail : iahmed@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Molecular Modeling ❖ Computer Aided Drug Designing ❖ Organic Chemistry & QSAR studies ❖ Theoretical Chemistry
	<p>श्री मिश्रा, जागेशचन्द्र Shri. Mishra, Jagesh Chandra Programmer E-mail : jmishra@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Software Development ❖ Teaching ❖ E-learning system operation
	<p>श्री कस्तूरिया, परिवेश Shri. Kasturia, Parivesh Programmer E-mail : pkasturia@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Software Development ❖ e-learning system operation
	<p>श्री चटकवार, आशीष Shri. Chatakwar, Ashish Programmer E-mail : achatkwar@nitttrbpl.ac.in</p>	<p>Key Areas:</p> <ul style="list-style-type: none"> ❖ Web Technology –Web page designing & application development ❖ Software Development ❖ Management Information System ❖ Computer networking ❖ Webcasting

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भाग – 2
ऑडिट रिपोर्ट

PART - II

Audit Report