

DIRECTORATE OF TECHNICAL EDUCATION

ANNUAL PLAN (2014-2015)

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Bhopal 462004(MP)**

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1. Background

The annual plan for the year 2014-15 is mainly drafted to cater to the need of the quality education to its students, building the required infrastructure and moving towards developing interest in research and innovation. The thrust of the twelfth plan is consolidating and improving the capacity and quality of existing technical institutes. The shortage of faculty and lack of infrastructure in state run engineering and polytechnics colleges are the major hurdles in matching the developments in technology. The directorate of technical education is working hard to overcome the shortage of faculty through e-vaani (e-lecture) scheme for polytechnics launched by Hon. Chief Minister of Madhya Pradesh on 26th August 2013. The efforts are being made to provide internet connectivity of 10 mbps to each & every colleges run by DTE. The annual plan 2014-15 is prepared keeping in mind the Jan Sankalp 2013 and Vision Document 2018 of the Government of Madhya Pradesh.

2. Major Activities undertaken by the department

- Counselling for admission in technical courses
- Governance of Technical Institutes

3. Status of the State (in Comparison to All India)

Comparison of Growth in Technical Education with other leading States				
State	Polytechnics	Seats Available	Engineering Colleges	Seats Available
Tamil Nadu	481	170909	498	205463
Maharashtra	483	173802	365	154827
Andhra	249	71280	643	235000
Karnataka	211	61832	161	96460
UP	211	64665	329	136417
Rajasthan	172	46651	131	61000
MP	108	19816	215	101535

4. Vision, Mission and Strategy

Vision:

- Need to transform our institutions from centres of knowledge dissemination to hubs of knowledge creation
- To initiate new Diploma/UG/PG/ programs in state run engineering and polytechnic colleges.
- To oversee the transformation of professional courses as per the need of industries.

Mission:

- To ensure quality education in all DTE run colleges and impart training to enhance the employability and skill of its students.
- To ensure that technical institute under its ambit follow the rules and regulation as laid down by UGC/AICTE guidelines.

Strategy:

In coming decade, the directorate of technical education will be looking forward to tackle the two main issues affecting the quality of technical education in the state.

▪ Academics

- To make necessary arrangements to overcome the shortage of faculty
By using A-view developed by Amrita University under NMEICT project.
- To create empanelment of experts from IITs/NITs for acting as mentor in project work of the students.
- To arrange assistance/advice from professional from real-life projects.

• Campus

- To provide decent infrastructure
- To work towards achieving green campus initiatives

5. Objectives

- To improve the academic standard of the engineering / polytechnic colleges.
- To develop college campuses on sustainable basis through “Green Campus Initiatives”.
- To enhance and motivate the use of ICT based working in DTE and its affiliated colleges.
- To provide better quality training to update the knowledge base of faculty and support staff.
- To provide necessary infrastructure and technical support for research and innovative work by the students and faculty.
- To encouraging private participation in campus development.

6. Goals

- To increase intake in polytechnics by 1500 for the academic session 2014-15.
- To establish 02 research & innovation centers at Jabalpur and Sagar.
- To connect 40 polytechnics through e-vaani (e-lecture) scheme.
- To start UG course in Robotics & Automation in all the state run engineering colleges from 2014-15.
- To start Mechatronics in Dewas, Ujjain, Hoshangabad, GW Bhopal, and Khandwa polytechnics and Industrial Electronics in Harda, Khurai, Hoshangabad, GW Indore and Seoni polytechnics.
- To establish 10 KW solar power station in all the polytechnics and engineering colleges

7. Key Challenges & Policy Issues

- To increase 30000 seats in polytechnics by 2018.
- To ensure 10 Mbps connectivity in all the state run engineering/polytechnic colleges.
- To develop at least one smart class room in 10 polytechnics
- To develop e-library in 10 polytechnics
- To start 12 New Diploma, 1 UG and 1 PG program.
- To develop 6 research & innovation centers at Bhopal, Gwalior, Khargone, Jabalpur, Sagar, and Ujjain.

Performance of 2012-13

Financial (₹ in Lakh)

Outlay	Budget	Expenditure
5700.00	6643.50	6009.30

Annual Plan 2012-13 Physical Target

Sr. No.	Major Head/Sub-Head/Scheme	Item/Activity	Physical Target set in terms of number of institutes	Progress
1	New Courses/Faculty in Engg/Poly Colleges	To introduce new courses in Polytechnics and Engineering Colleges in emerging areas.	3	3
2	Welfare Schemes for SC/ST Students	Drawing, Stationary and books to SC/ST students	73	73
3	Faculty & Staff Development	Training and career related refreshers programs	69	69
4	Development of EMIS at DTE and RE Centres at Institute Level	Establishing link between DTE and Institutes	69	69
5	Strengthening of Engg./Polytechnic Colleges	Building, repair and maintenance works.	15	15
6	Scholarship for General Category Poor Students under SNVS Scheme	Scholarships	73	73
7	Establishment of NIFT, Bhopal	Grant in Aid	1	1
8	Grant in Aid to Engg/Poly Colleges/IIT Indore	Grant in Aid	7	7
9	Grant in Aid to RGPV	Grant in aid.	1	1
10	Establishment & Strengthening of New Polytechnics	under the MHRD, GOI scheme on Submission on Polytechnics	21	21
11	Dr. Baba Saheb Ambedkar Polytechnic Scheme	Dr. Baba Saheb Ambedkar Polytechnic Scheme	3	2
12	Eklavya Polytechnic Scheme	Eklavya Polytechnic Scheme	3	2
13	TEQIP Phase - II	Quality Improvement Programs scheme of MHRD, GOI related to R&D	5	5
14	Finishing School	Special Training programs to enhances the chances of getting jobs for the students	48	5
15	Establishment of Centre of Excellence	development of state of the art labs in polytechnics and engineering colleges	1	*
16	Incentive and Award Scheme in Tech. edu.	for all the staff of technical education	69	*
17	Integrated Complex for Directorate of Technical Education	multi utility building for the Directorate of Technical Education	1	*
18	Polytechnics under PPP Mode	as per AICTE scheme to launch 300 such polytechnics all over India	10	*

Innovation adopted: Finishing School

Performance of 2013-14

Financial (₹ in Lakh)

Outlay	Budget	Expenditure (As on 31 st October)
7900.00	6643.50	3990.19

Annual Plan 2013-14 Physical Target

Sr. No.	Major Head/Sub-Head/Scheme	Item/Activity	Physical Target set in terms of number of institutes	Progress
1	New Courses/Faculty in Engg/Poly Colleges	To introduce new courses in Polytechnics and Engineering Colleges in emerging areas.	2	2
2	Welfare Schemes for SC/ST Students	Drawing, Stationary and books to SC/ST students	73	73
3	Faculty & Staff Development	Training and career related refreshers programs	69	69
4	Development of EMIS at DTE and RE Centres at Institute Level	Establishing link between DTE and Institutes	69	69
5	Strengthening of Engg./Polytechnic Colleges	Building, repair and maintenance works.	15	15
6	Scholarship for General Category Poor Students under SNVS Scheme	Scholarships	73	73
7	Establishment of NIFT, Bhopal	Grant in Aid	1	1
8	Grant in Aid to Engg/Poly Colleges/IIT Indore	Grant in Aid	7	7
9	Grant in Aid to RGPV	Grant in aid.	1	1
10	Establishment & Strengthening of New Polytechnics	under the MHRD, GOI scheme on Submission on Polytechnics	21	21
11	Dr. Baba Saheb Ambedkar Polytechnic Scheme	Dr. Baba Saheb Ambedkar Polytechnic Scheme	3	2
12	Eklavya Polytechnic Scheme	Eklavya Polytechnic Scheme	3	2
13	TEQIP Phase - II	Quality Improvement Programs scheme of MHRD, GOI related to R&D	5	5
14	Finishing School	Special Training programs to enhances the chances of getting jobs for the students	48	5
15	Establishment of Centre of Excellence	development of state of the art labs in polytechnics and engineering colleges	1	*
16	Incentive and Award Scheme in Tech. edu.	for all the staff of technical education	69	*
17	Integrated Complex for Directorate of Technical Education	multi utility building for the Directorate of Technical Education	1	*
18	Polytechnics under PPP Mode	as per AICTE scheme to launch 300 such polytechnics all over India	10	*
19	Establishment of 03 Regional Centers DTE	To reduce the workload at DTE	03	*
20	Smart/Virtual Class Rooms Scheme	To provide state-of the art technology in class rooms for receiving e-lectures.	04	*

Innovation adopted: Smart Class rooms

ANNUAL PLAN

2014-15

1. New Courses/Faculty in Engineering Colleges & Polytechnics

1.1 Justification

The Government of Madhya Pradesh in its vision document 2018 envisages that by 2018, the intake in polytechnics is to be increased by 30000 and each engineering /polytechnic college should run with minimum of five branches. At present majority of government polytechnics are running four or less than four branches therefore from academic session 2012-13, new branches or courses are to be introduced in 23 polytechnics. Similarly the intake for the state declared 04 autonomous engineering colleges is also to be doubled in twelfth plan.

1.2 Objectives

- To start the new courses in 23 polytechnics during the academic session 2014-15.
- Double the intake in four autonomous engineering colleges at Jabalpur, Rewa, Sagar and Ujjain.
- To start one new UG course in Robotics and Automation in engineering college Jabalpur and Ujjain.
- To start two new courses in Mechatronics in Govt. Poly College Dewas, Ujjain, Hoshangabad, Khandwa and Govt. Women Poly Bhopal, and Industrial Electronics in Govt. Polytechnics Khurai, Harda, Hoshangabad, Women Poly Indore and Seoni
- To create the posts for the above new courses.

1.3 Coverage

This scheme covers 05 autonomous engineering college and 23 polytechnics.

1.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below.

S. No.	Scheme of Expenditure	Financial Outlay for (₹. in Lakh)	
		2012-17	2014-15
1	Lab equipment/machinery	600.00	300.00
2	Posts	20.00	00.00
3	Furniture	300.00	200.00
4	Books/Learning material/Journals/Magazines	200.00	80.00
5	Maintenance /Repair Lab Equipment	20.00	20.00
Total		1140.00	600.00

(₹. in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
01	NORMAL 47	1140.00	600.00
02	TSP 41	0.00	0.00
03	SCSP 64	0.00	0.00

Total	1140.00	600.00
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1.5 Expected Outcome:

This scheme will ensure the availability of quality infrastructure and equipment's for the newly started courses in engineering /polytechnic colleges.

2. Welfare Schemes for ST/ SC students

2.1 Justification

The State of Madhya Pradesh has a significant percentage of SC and ST population across the different districts. The Census 2011 shows the first ten districts in terms of the population size of these segments. The State Government has decided to continue to provide support the SC/ST students for their high studies in technical education. The Govt is planning to distribute free AKASH-II Tablets to these students for the session 2014-15.

2.2 Objectives

- To provide book-bank facility
- Free stationery and drawing material
- Special coaching facility

2.3 Coverage

The scheme covers the elementary needs of SC/ST category students of the state.

2.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

(₹in Lakh)

S. No.	Scheme of Expenditure	Financial Outlay for	
		2012-17	2014-15
I	Drawing Stationary	4940.00	260
II	Book bank		80
III	Special Coaching,		60
Total		4940.00	400.00

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	TSP 41	2000.00	190.00
II	SCSP 64	2940.00	210.00
Total		4940.00	400.00

2.5 Expected Outcome:

In the end of a term student should be able to perform well in comparison to general category students thus contribute to the industry, social and economic development. Students will be competent enough to get a wide acceptability in the world of work.

3. Faculty & Staff Development

3.1 Justification

12th Five Year Plan has clearly laid down the emphasis on quality education rather than quantity in professional courses like Engineering Degree and Diploma courses. The market economy driven changes in engineering and technology are taking place at a very fast pace. The need of the hour is to keep updating the faculty and staff with those changes than only they will be able to teach and train the students with those contemporary changes.

3.2 Objectives

- To keep updating the knowledge base of the faculty by organizing faculty development programs at IITs, and IIMs.
- To provide training to the lab staff.
- To provide computer based training to all its employees so as to achieve the paperless working by 2018.
- To arrange administrative training to its managerial staff.

3.3 Coverage

The scheme will cover all the personnel from Directorate of Technical Education and all state run engineering and polytechnic colleges of the state.

3.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
I	Training & Seminar	1140.00	150.00
Total		1140.00	150.00

(₹ in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	1140.00	150.00
Total		1140.00	150.00

3.5 Expected Outcome:

Faculty and other staff will be trained as per the requirement of the curriculum. They would become more knowledgeable and more responsive and thus will be able to guide the students in their project and other employment oriented training course.

4. Green Campus Initiatives (EMIS, 10 KW Solar Power Stations)

4.1 Justification

The Directorate of Technical Education Madhya Pradesh has recently started putting efforts to keep its college campuses clean and green. The efforts are also directed towards achieving the paperless working through online transfer of necessary information and data between colleges and DTE. The massive and typical topography of the state makes it very difficult for the colleges to have 24x7 power supply. This problem is answered by using solar energy for the daily needs of the colleges.

4.2 Objectives

- 10 KW Solar Power Station
- Waste Water Management/ Rainwater Harvesting
- Recycling bin for e-waste
- Digital library /e-learning center

4.3 Coverage

The scheme is expected to cover all the state run engineering and polytechnics colleges under the aegis of Directorate of Technical Education (DTE).

4.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
I	○ Digital library/ e-learning center/EMIS	3040.00	100.00
II	○ 10 KW Solar Power Station		200.00
Total		3040.00	300.00

(₹in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	2240.00	300.00
II	TSP 41	150.00	0.00
III	SCSP 64	650.00	0.00
Total		3040.00	300.00

4.5 Expected Outcome:

The scheme will ensure clean and green campus with better flow of academic/ administrative related info amongst institutions and Directorate of Technical Education thus ultimately paving the way to achieve paper-less working by 2018 in technical Education.

5. Strengthening of Engineering/Polytechnics Colleges

5.1 Justification

This Scheme is all about the development of necessary building infrastructures in engineering colleges and polytechnics under DTE. It includes the funding for ongoing construction work, newly proposed construction work, maintenance and repair of lab/classrooms/boundary wall etc.

Objectives

- To construct new buildings at Nowgong, Bareli, Harshud and additional blocks at IGEC Sagar.
- To construct new /repair labs/ classrooms/ boundary wall of the Dr. BR Ambedkar Polytechnic College, Gwalior, Govt. Poly Sanawad, Khirsadoh, Balaghat, Seoni and Khurai.

5.2 Coverage

The scheme will cover all the institutes managed by DTE.

5.3 Infra-Structure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. No.	Scheme of Expenditure	Financial Outlay for ₹in Lakh	
		2012-17	2014-15
I	New Building	5320	115.00
II	Ongoing construction activities		400.00
III	Additional Labs/ classrooms		285.00
IV	Repair/boundary wall		200.00
Total		5320.00	1000.00

(₹in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	4000.00	665.00
II	TSP 41	0.00	225.00
III	SCSP 64	1320.00	110.00
Total		5320.00	1000.00

5.4 Expected Outcome:

There shall be buildings for all Engineering and Polytechnic Colleges of the State as per AICTE norms to ensure smooth conduction of the classes as per the curriculum of the RGPV.

6. Scholarship for General Category Poor Students under SNVS

6.1 Justification

In a move towards helping poor students of general category, Directorate of Technical Education has the provision of granting scholarship under Samanya Nirdhan Varg Scholarship Scheme (सामान्य निर्धनवर्ग छात्रवृत्ति/शिष्यवृत्ति स्कीम).

6.2 Objectives

- To enable poor students under general category to complete their engineering /diploma course.

6.3 Coverage

The scheme is expected to cover all the state run engineering and polytechnics colleges with the DTE.

6.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
I	Scholarship Scheme for general category poor students under SNVS scheme	1820.00	250.00
Total		1820.00	250.00

(₹in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	1820.00	250.00
Total		1820.00	250.00

6.5 Expected Outcome:

The scheme will benefit both the meritorious and poor students belonging to general category studying in DTE controlled engineering / polytechnics.

7. Establishment of NIFT, Bhopal

7.1 Justification

The State government has pledged support for the National Institute of Fashion Technology Bhopal for 2008-12 period.

7.2 Objectives

- To construct building (inclusive of academic, hostel, faculty, etc. for a comprehensive residential campus)
- Academic support system and infrastructure
- Operational cost of functioning in temporary center for three years.

7.3 Coverage

The scheme will cover NIFT Bhopal only.₹

7.4 Infra-Structure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

(₹in Lakh)

S. No.	Scheme of Expenditure	Financial Outlay for ₹in Lakh	
		2012-17	2014-15
I	State Share for NIFT	10.00	1.00
Total		10.00	1.00

(₹in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	10.00	1.00
Total		10.00	1.00

7.5 Expected Outcome:

The establishment of NIFT Bhopal will serve the students of this state in getting high quality access to education in fashion technology.

8. Grant-in-Aid to Autonomous Engg. Colleges/Polytechnics/IIT Indore

8.1 Justification

Department of Technical education has declared 4 engineering and 14 Polytechnic colleges of the state as autonomous colleges. This scheme caters to the need of the payment of the salary of the faculty recruited under the 2004 rules in these colleges and grant to IIT Indore as state assurance to provide land for it .

8.2 Objectives:

- To help autonomous institutes which are not able to generate their own resources for the payment of the salary of the faculty and staff.

8.3 Coverage:

The scheme was meant to faculty and staff recruited under rules 2004 by the local society of the respective college.

8.4 Infrastructure and Financial Outlay:

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. NO.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
I	Salaries & Wages	6295.00	999.00
II	Grant to IIT Indore	5.00	1.00
Total		6300.00	1000.00

(₹ in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	6300.00	1000.00
II	TSP 41	0.00	0.00
III	SCSP 64	0.00	0.00
Total		6300.00	1000.00

8.5 Expected Outcome:

The faculty and staff recruited under 2004 rules and working in autonomous institutions will benefit out of this scheme till the colleges themselves start their salary through their own resources i.e. fee collected from the students.

9. Establishment & Strengthening of New Polytechnics

9.1 Justification

Under the GOI scheme of “**Sub-Mission on Polytechnics under the Coordinated Action for Skill Development**”, 21 new polytechnics have been started in Madhya Pradesh from 2009-10 till 2010-11. The state government bears the recurring expenditure on all these new polytechnics as per the policy.

9.2 Objectives

- To provide access to technical education to the young generation living in economically backward areas of the state.
- To improve the well being of young and uneducated masses living in the vicinity of these places where polytechnics are setup.

9.3 Coverage

Under this scheme 21 polytechnics have been opened till now.

2009-10	2010-11	2011-12
Rewa, Sindhi, Dindori, Shivpuri, Sheopur	Datia, Umariya, Shajapur, Anoopur, Alirajpur, katni, Dewas, Mandsoore, Raisen	Jatara, Nasrullahganj, Itarasi, Rajgarh, Pawai, Sendhwa, Seronj

9.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme is given below:-

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
I	Central share (Non-recurring)	10630.00	0.00
II	State share (Recurring)	3040.00	1800.00
	Total	13670.00	1800.00

(₹in Lakh)

S.NO.	Head of Account (State share only)	Proposed Provision for	
		2012-17	2014-15
I	Normal 47	13670.00	1800.00
II	SCSP 64		00.00
	Total	13670.00	1800.00

9.5 Expected Outcome:

21 Polytechnics setup in backward and poorly serviced block of the state will improve the economy and well-being of the masses.

10. Dr. Baba Sahib Ambedkar Polytechnic Scheme

10.1 Justification

Department of Technical education has initiated an ambitious fully residential free of cost technical education scheme "**Baba Sahib Ambedkar Yojna**" in year 2006-07 for the SC category students.

10.2 Objectives:

- The main objective was to enable SC category students those were not able to continue their study due to poor financial condition of their parents and used to leave their studies mid-way through their career.

10.3 Coverage:

The scheme was floated for SC category students (Boys and Girls) of the state.

10.4 Infrastructure and Financial Outlay:

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. NO.	Scheme of Expenditure	Financial Outlay for ₹in Lakh	
		2012-17	2014-15
I	New labs/ New class rooms/Hostel	1250.00	330.00
II	Salaries & Wages	100.00	5.00
III	Free Stationary, Books, Lodging Boarding & incentive for teachers and stipend to students/Akash Tablet	4000.00	470.00
IV	Equipment/Furniture	500.00	45.00
V	Advanced Technical Training	150.00	150.00
Total		6000.00	1000.00

(₹ in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-2017	2014-15
I	SCSP 64	6000.00	1000.00
Total		6000.00	1000.00

10.5 Expected Outcome:

- The fully residential and free of cost education tends to enhance the performance bar of the SC category students studying under this scheme.
- The incentives meant for teachers and staff involved in implementing this scheme was also instrumental in giving their best to the students.

11. Eklavya Polytechnic Scheme

11.1 Justification

Department of technical education has initiated another ambitious fully residential free of cost technical education scheme named "**Ekalavya Poytechnic Yojna**" in year 2006-07 for ST category students.

11.2 Objectives:

- The main objective was to enable ST category students those were not able to continue their study due to poor financial condition of their parents and used to leave their studies mid-way through their career.

11.3 Coverage:

The scheme was floated for ST category students (Boys and Girls) of the state.

11.4 Infrastructure and Financial Outlay:

The infrastructure and financial outlay needed for the scheme may be seen in the table given below:-

S. NO.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
I	New labs/ New class rooms/Hostel	1250.00	300.00
II	Salaries & Wages	100.00	5.00
III	Free Stationary, Books, Lodging Boarding & incentive for teachers and stipend to students/Akash Tablet	4000.00	500.00
IV	Equipment/Furniture	570.00	45.00
V	Advanced Technical Training	150.00	150.00
Total		6070.00	1000.00

(₹ in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-2017	2014-15
I	TSP 41	6070.00	1000.00
Total		6070.00	1000.00

11.5 Expected Outcome:

- The fully residential and free of cost education tends to enhance the performance bar of the SC category students studying under this scheme.
- The incentives meant for teachers and staff involved in implementing this scheme was also instrumental in giving their best to the students.

12. Technical Education Quality Improvement Programme-II

In December, 2002, the Ministry of Human Resources and Development launched the “Technical Education Quality Improvement Programme (TEQIP)” with the aim of improving quality of technical education and enhancing existing infrastructure of the institutions so that these can compete with best in the world in technical education.

12.1 Justification

TEQIP Phase-II comes under Centrally Sponsored Scheme (CSS) with the assistance of the World Bank. The funding pattern will be 75:25 between the Centre and the participating States. The TEQIP-II project is for the duration of 4 years. The Programme will last from 2011-12 to 2014-15. SGSITS Indore, SATI Vidisha, MITS Gwalior, UIT RGPV and one private institute SIRT Bhopal were chosen to get the benefits of TEQIP-II.

12.2 Objectives

- Improving quality of technical education and enhancing existing capabilities of the Institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at national and international level

12.3 Coverage

- SGSITS Indore, SATI Vidisha, MITS Gwalior, UIT RGPV and one private institute SIRT Bhopal were chosen to get the benefits of TEQIP-II.

12.4 Infrastructure and financial outlay

The infrastructure and financial outlay needed for the scheme is given below.

S. No.	Scheme of Expenditure	Financial Outlay for ₹in Lakh		
		2012-17		2014-15
I	SPFU Office expenses	State share	150.00	245.00
		Central share	350.00	
II	Grant to Engineering Colleges	State share	2400.00.00	
		Central share	3675.00	
Total		State share	2550.00	245.00
		Central share	4025.00	

(₹in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
I	Grant 70	2550	245.00
Total		2550	245.00

12.5 Expected Outcome

Initiation of research and development activities in the institutes will raise the quality of education being imparted to the students and institutions will able to produce quality teachers in technical education.

13. Polytechnics under PPP Mode

Department of technical education & skill development MP is also keenly interested in running state owned Polytechnics under PPP through the leading industrial house.

13.1 Justification

- The collaboration with a private partner will enhance the employability skills of the students by allowing internship for students from the polytechnics and facilitate for placement of the students from the polytechnics.
- Partner will enable the faculty to take hand-on training/experience on shop floor via industry partner.

13.2 Objectives

- Enhance the quality of diploma graduates through on job training facilities through a private partner (industry).
- The shortage of faculty will be taken care of by the private partner.
- The course curriculum will be designed as per the needs of the industrial sector.
- Motivate the faculty/staff and others to excel in their responsibilities by employing TQM.

13.3 Coverage

The scheme will cover the recently opened polytechnics in educationally backward and underserved districts of the state and those polytechnics previously opened in category C districts but not showing good performance.

13.4 Infra-Structure and financial outlay

The infrastructure and financial outlay needed for the scheme may be seen in the table below:

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
1	Grant to the prospective private partner for a polytechnic	80.00	1.00
Total: -		80.00	1.00

(₹ in Lakh)

S.No.	Head of Account	Proposed Provision for	
		2012-17	2014-15
1	Normal 47	80.00	1.00
Total		80.00	1.00

13.5 Expected Outcome:

The polytechnics under PPP mode will able to function efficiently and will produce fit for employment category students.

14.Establishment of 03 Regional Centres of DTE

During the last few years, tremendous growth has been achieved by the state in technical education. At present more than 715 institutes are running in the state with more than 1.25 lacs students enrolled under various professional courses. As the expansion of technical education is taking place in backward and poorly developed regions of the state such as Seronj, Alirajpur, Pawai (Panna), Nowgong, Jhabua and many more such places. It has now become imperative to establish 03 multi-utility regional centres of Directorate of Technical Education (DTE) at Indore, Gwalior and Jabalpur to expedite the administrative work of the institutes located in these regions and to cater the needs of employment related activities of the students

14.1 Justification

The present DTE setup was planned way back in 1960's which is quite inadequate to meet the state's aspirations in achieving excellence in technical education and provide quality technical education to the students of this country. State is in the process of expanding the technical education by opening new polytechnic colleges under the central assistance schemes and establishing new engineering colleges in the backward un-served belts of the state. The major problem envisaged is the lack of guidance and supervision of the institutes located in these regions, administrative problems, employment oriented training and placement of the students, shortage of qualified teachers in the institutions. With expanding DTE, one will able to get the necessary help and guidance on key administrative problems related to utilization of the budget and carrying out the better communication and flow of data to the head office at Bhopal and organize employment related activities at these centres without putting the teaching staff under stress

14.2 Objectives

- To overcome the difficulties faced by the institutes far away from the HOD office.
- Inability of the institutes to utilize the central/state govt grants due to acute faculty shortage in the technical institutions of the state.
- To create an platform for the remotely located institutions to enable their students to get employment oriented training centres.
-

14.3 Coverage

The scheme will benefit the faculty and students of all the private as well as state run polytechnics and engineering colleges of the state.

14.4 Infra-Structure and financial outlay

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lacs	
		2012-17	2014-15
	Establishment of 03 regional centres	0.00	0.00
	Total :-	0.00	0.00

(₹in Lacs)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
01	Normal 47	0.00	0.00
	Total :-	0.00	0.00

14.5 Expected Outcome:

The establishment of 03 regional centres will enable to improve the quality of technical education across the state run polytechnics and engineering colleges.

15. Smart/Virtual Class Rooms / E-vaani/ Research & Innovation/ Tech Friend Faculty Scheme

The engineering colleges under National Knowledge Network (NKN) and polytechnics under National Mission on Education through Internet Communication Technologies (NME-ICT) are to be connected through high speed internet. To avail the benefits of these schemes, our institutes should have minimum required infrastructure of smart/virtual classroom.

15.1 Justification

The state technical institutes are plagued with shortage of qualified teachers and wired class rooms to access the quality lectures from IITs/NITs/Universities. Developing the smart/virtual class rooms setup in the institutions will alleviate this problem to great extent.

15.2 Objectives

- To overcome the acute faculty shortage in the technical institutions of the state.
- To provide a facility in the institutions through which the students get an opportunity to interact with the eminent teachers of higher level technical institutions of the country.

15.3 Coverage

The scheme will benefit the faculty and students of the state run polytechnics and four state autonomous engineering colleges.

15.4 Infra-Structure and financial outlay

S. No.	Scheme of Expenditure	Financial Outlay for ₹ in Lakh	
		2012-17	2014-15
	Setting up smart/virtual class rooms/e-vaani program/research & innovation/ Tech friendly faculty scheme	0.00	550.00
Total :-		0.00	550.00

(₹ in Lakh)

S.NO.	Head of Account	Proposed Provision for	
		2012-17	2014-15
01	Normal 47	0.00	550.00
Total :-		0.00	550.00

15.5 Expected Outcome

The setting up smart class room will enable the DTE to run **e-vaani** scheme and thus overcome the acute shortage of faculty. DTE will able to transmit the e- lecture from major cities like Bhopal, Ujjain and Jabalpur to those students studying in remotely placed polytechnics.

E-Vaani (E-Lecture Scheme)

The thrust of 12th five year plan is on consolidating and improving the capacity and quality of the existing institutes rather than wayward expansion. The acute shortage of faculty in states

polytechnics have led the DTE to launch a new scheme named e-vaani by Hon. CM Shri Shivraj Singh Chouhan on 26th August 2013 at Lal Parade ground Bhopal.

○ **Justification**

The majority of state run polytechnics are reeling under the faculty crunch. It is the foremost task of this office to provide good quality faculty to its each and every college. To provide quality education through e-lecture is the most potent option to overcome the shortage of faculty in polytechnics.

○ **Objectives:**

- To provide e-lectures in 04 core branches e.g. civil, mechanical, electrical and electronics from Bhopal.
- The availability of rich and quality faculty in SV/ Govt Women Polytechnic Bhopal paved the way to overcome the shortage of faculty.

○ **Coverage**

Initially the scheme was launched in 07 polytechnics and 04 more were added later on. This year it will reach to 15 polytechnics.

○ **Expected Outcome**

The e-vaani scheme will not only be the answer for the acute shortage of faculty but it has enabled the DTE to provide the services of the faculty stationed at major cities like Bhopal, Ujjain and Jabalpur to those students studying in remotely placed polytechnics.



Research & Innovation Centre Scheme

The Directorate of Technical Education plans to develop six multi-utility research & innovation centres (RIC) at Bhopal, Gwalior, Jabalpur, Khandwa, Sagar and Ujjain to cater the needs of the engineering and polytechnic students to work on their innovative ideas in their project work. At these centres, students will be able to get the material and technical support for their laboratory and project work.

Zone	Polytechnics	Nodal Centre
1	Ujjain, Jhabua, Pachore, Jaora, Jawad, WP Indore, Sri Vaishnav Indore	Polytechnic Ujjain
2	Gwalior, WP Gwalior, Morena, Bhind, Dabra, Raghogarh	Dr. BR Ambedkar Polytechnic Gwalior
3	Panna, Nowgong, Damoh, Tikamgarh, Khurai, Sagar	SR Polytechnic Sagar

4	Kalaniketan, WP Jabalpur, Shahdol, Mandla, Chhindwara, Seoni, Balaghat, Narsinghpur, Khirsadoh, Satna	Kalaniketan Jabalpur
5	SV Bhopal, WP Bhopal, Hoshangabad, Ashoknagar, Harda, Sehore, Betul, SATI Vidisha	SV Polytechnic Bhopal
6	Khandwa, Dhar, Barwani, Burhanpur, Khargone, Sanawad	MGP Polytechnic Khargone

○ **Justification**

The quality of project work in both engineering/polytechnic colleges have gone down drastically due to lack of technical/ material support to the students. These centres will provide not only the technical/ material support to the students but will get them the opportunity to get in touch with the best faculty of the nation drawn from IITs/NITs/DRDOs/DMRL etc.

○ **Objectives**

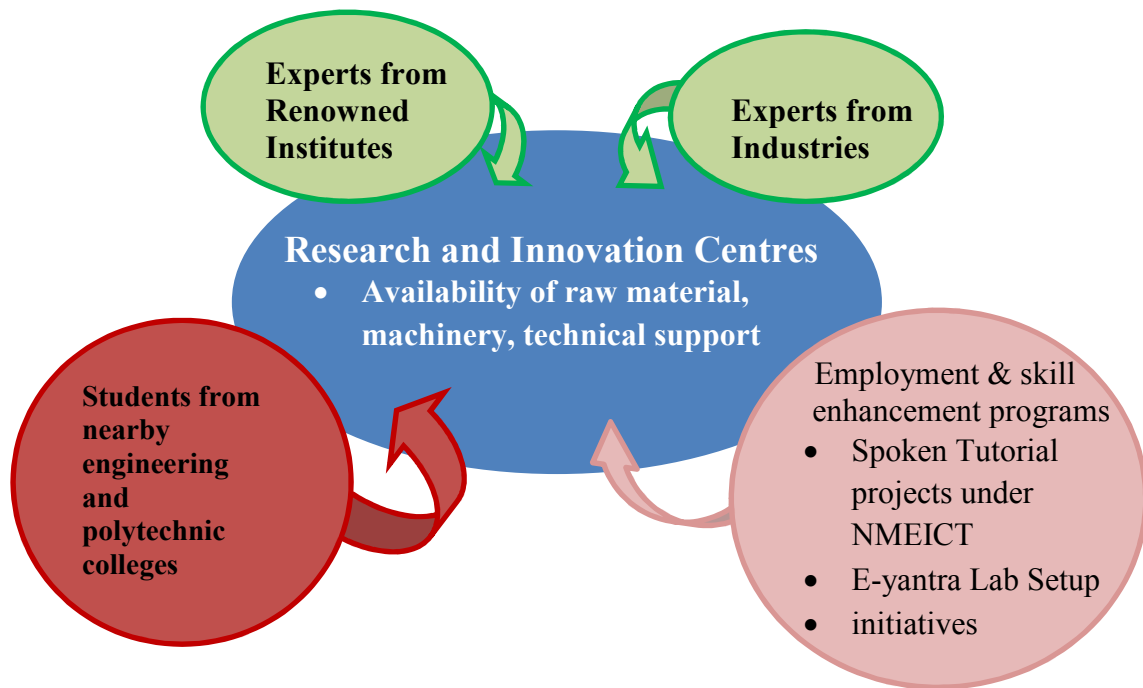
- The students will able to realize and work on their dreams by giving them the opportunity to dissemble and assemble the out dated and discarded items.
- The live inter-action with the invited experts will give them the much needed exposure to the real-life problems associated with the project work.
- The students will able to plan and prepare their in-house project which now-a-days is being made from market.
- The creativity and innovative skills of the students, faculty, and support staff will make great impact once they start doing something under one roof.
- Further addition of e-learning centre will open the window of opportunity tour faculty and students to interact with best researchers of the world.
- These centres will enable the students from other colleges to interact with each other and work in a team which will inculcate the spirit of team work in students .
- These centres will be used to arrange pre-placement talks, pool campuses and other initiatives.

○ **Coverage**

The scheme will benefit the students of the state run polytechnics and five state autonomous engineering colleges.

○ **Expected Outcome**

- The setting up these centres will lead to enhance the knowledge base of the students, the innovative project work done by the students. The level of employability will increase as pre-placement talks, pool campuses and other initiatives will take place at these centres thus opening a window to the all the students of the nearby region.



Tech-Friend Faculty Scheme

Scheme is aimed at supplementing & providing expertise to teaching and research in those areas in which state run engineering and polytechnics do not have the expertise. This scheme envisages getting the services of the highly motivated working professionals on weekend from the field of Telecommunication, Irrigation, Public Health Engineering, Bridge Corporation, Research Centres, National Highway Authority, Public Works Department, National Informatics Centre, Urja Vikas Nigam, State Power Transmission Company, Testing & Measuring Labs, and Works Managers from local Car dealers, industries etc. to provide direct interaction with the students in their colleges.

○ **Justification**

The lack of practical knowledge in faculty combined with its acute shortage in state's engineering and polytechnic colleges is one of the major stumbling blocks in making the students employable. The remotely located polytechnics are not the preferable choice of the regular faculty. The situation is rather not good in case of imparting the practical training to the students. The Tech-Friend Faculty Scheme will enable the students to learn the basic and practical aspects of the real-life engineering projects/work going on in all possible areas from the professionals having engineering background and employed in govt./semi govt. organizations and industries.

○ **Objectives**

- The students will be able to understand the practical aspects of the real life projects e.g. how road is made, how railway track is laid down, how telephone exchange, mobile tower works, how a transformer is installed, how the car wheels are balanced and why it is necessary, what to do when clutch fails etc.

- The live inter-action with those working in the field will not only able to raise the curiosity level amongst the budding engineers but will help them to bring innovation where ever they are going to serve.
- This scheme will enable the students to become employable from the point of view of industries.
- The close interaction with working professionals will open up the avenues for the training of the students in those very centers where they are working.
- **Coverage**

The scheme will benefit the students of the state run polytechnics and five state autonomous engineering colleges.
- **Expected Outcome**
 - By involving and encouraging the local professionals and those visiting their native places will definitely enable the institutes to cater to that part of the curriculum which happens to be the most neglected i.e. Laboratory Classes/ Practical Classes/Experimental Work/Project Report.

Other Newly Added Schemes for the Annual Plan 2014-15 are:

16. Rashtriya Ucchar Shiksha Abhiyan

17. IT/E-Governance

18. Policy Reforms, Enterprise Resource Planning and Vision 2018.