

Multi- Utility Research and Innovation Centres under DTE

1. Introduction

The Directorate of Technical Education Madhya Pradesh plans to develop multi-utility research & innovation centres (RIC) at Bhopal, Gwalior, Jabalpur, Khargone, Rewa, 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 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, Dewas, Shajapur	1. Polytechnic Ujjain 2. Engineering College Ujjain
2	Gwalior, WP Gwalior, Morena, Bhind, Datia, Dabra, Raghogarh	1. Dr. BR Ambedkar Polytechnic Gwalior
3	Panna, Nowgong, Damoh, Tikamgarh, Khurai, Sagar, Rewa	1. Engineering College Rewa 2. IG Engineering College Sagar 3. SR Polytechnic Sagar
4	Kalaniketan, WP Jabalpur, Shahdol, Mandla, Chhindwara, Seoni, Balaghat, Narsinghpur, Khirsadoh, Satna	1. Kalaniketan Jabalpur 2. Engineering college Jabalpur
5	SV Bhopal, WP Bhopal, Hoshangabad, Ashoknagar, Harda, Sehore, Betul, SATI Vidisha	1. SV Polytechnic Bhopal
6	Khandwa, Dhar, Barwani, Burhanpur, Khargone, Sanawad	1. Govt. Polytechnic College Khargone

2. Technical Support

Experts' Advise	On floor support
Renowned experts from institutions, research labs as well as industries.	Well trained technical assistants like machinist, electricians and μ P programmer, PCB designer etc.

These centres will ensure the availability of various experts from renowned institutions as well as industries for delivering the keynote addresses and talk-

sessions to put the real wings to the imaginations of the young and budding engineers depending on their areas of interest.

3. The Material Support

The material support will include the availability of different type and sized work pieces such as mild steel rods and plates, printed circuit board sheets, Perspex rods and sheets, different motors (servo/ stepper), sensors and actuator etc.

The outdated and out of use equipment's, computers, printers, photocopiers, water-coolers, air-conditioners, college vehicle etc. will be made available to the inventories of these centres to work hand-on by the students as envisaged in **Tod-Fod-Jod** scheme of National innovation council of India.

4. Infrastructure Support: (₹ 200 lacs per centre)

Non-recurring (₹ in lacs)	Recurring (₹ in lacs)
150.00	50.00

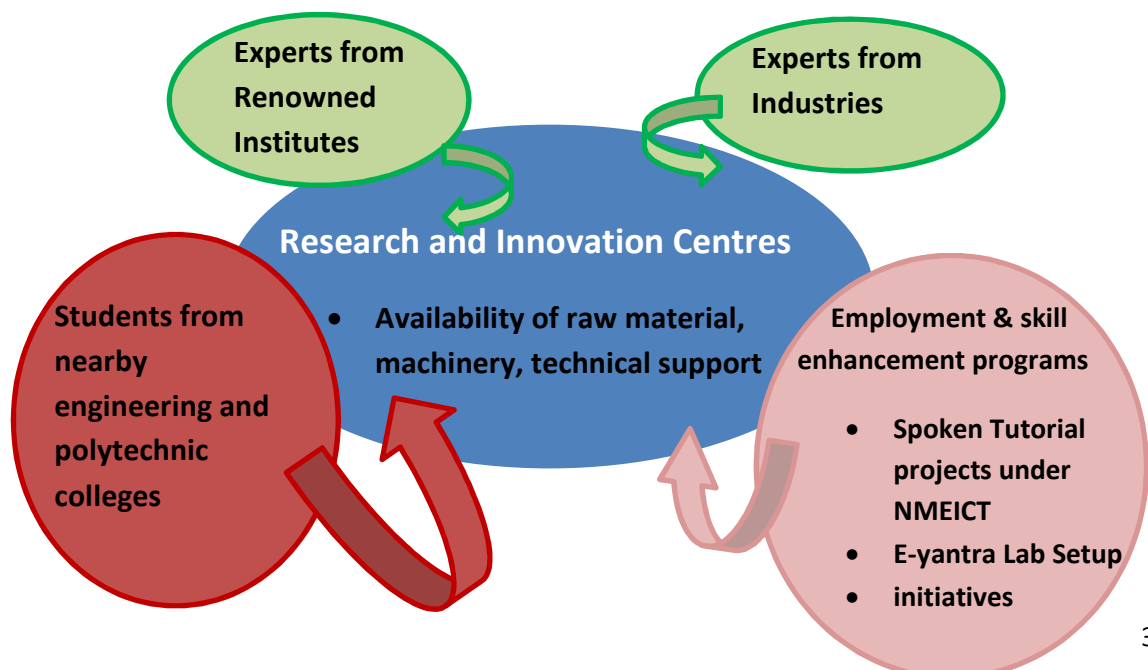
One multi-utility workshop under single roof should have the below mentioned equipment's:

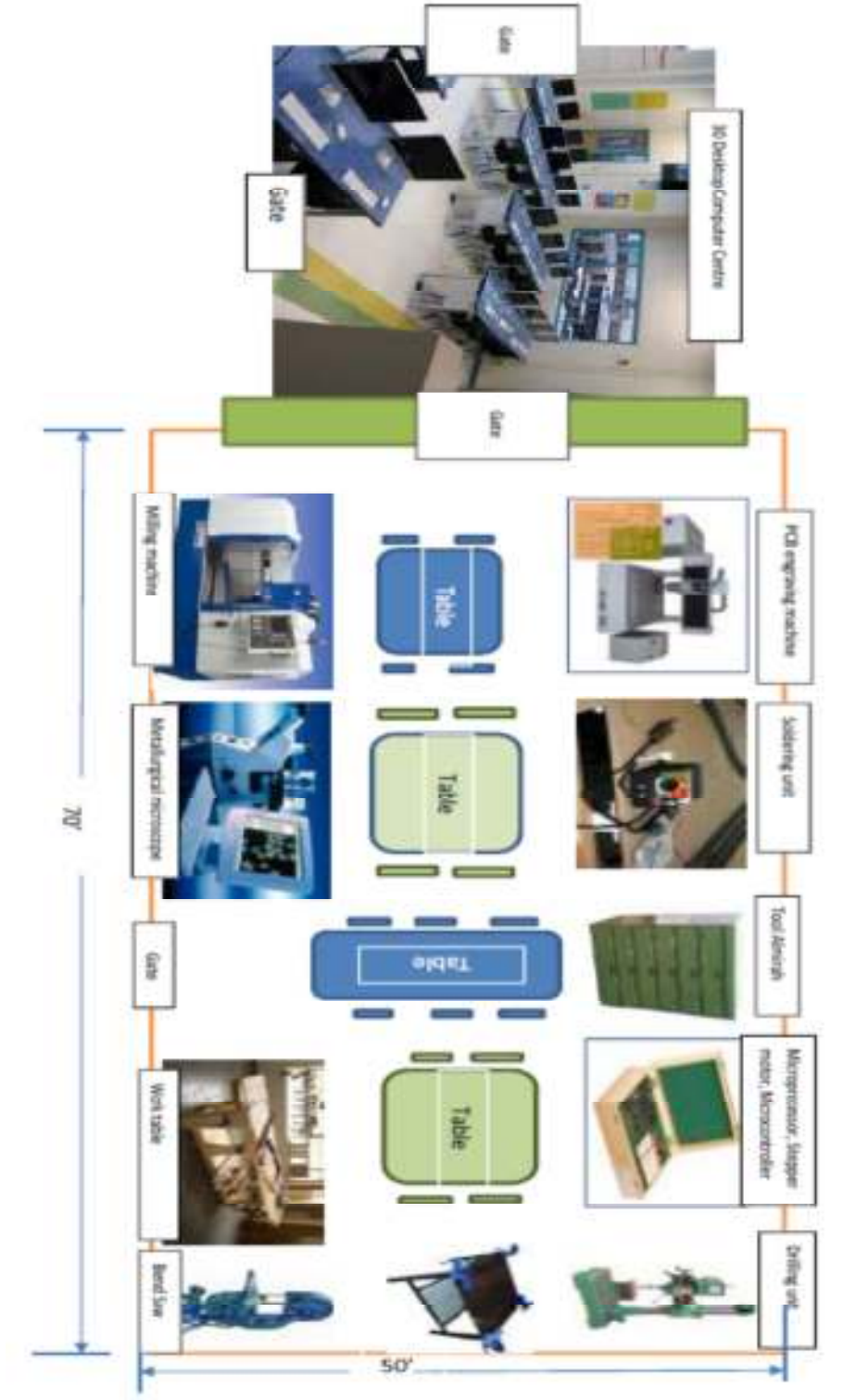
- Multi-axis CNC milling machine,
- CNC lathe machine,
- PCB engraving machine,
- Programmable logic controllers,
- Macro & micro drilling machines
- Bend saw
- Power hacksaw
- Motors and limit switches,
- Microcontrollers
- Microprocessors
- Electronic weighing machine having precision of 0.001mg
- Optical screen based Metallurgical microscope
- Sophisticated surface finish measuring tools such as perthometer
- Digital ampere meter, voltmeter and watt meter, brazing and soldering units,

- Digital viscometer, calorimeter,
- Different add on gauges, go, no-go gauges, slip gauges.
- Miscellaneous measuring and cutting tools

5. Advantages:

- I. The students will be able to realize and work on their dreams by giving them the opportunity to disassemble and assemble the out dated and discarded items.
- II. 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.
- III. The students will be able to plan and prepare their in-house project which now-a-days is being made from market.
- IV. The creativity and innovative skills of the students, faculty, and support staff will make great impact once they start doing something under one roof.
- V. Further addition of e-learning centre will open the window of opportunity for faculty and students to interact with best researchers of the world.
- VI. 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 which they lack prominently in present setup.
- VII. These centres will be used to arrange pre-placement talks, pool campuses and other initiatives.





A Schematic Layout of the Proposed Research & Innovation Centre

For Further details and enquiry, please feel free to write to:

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