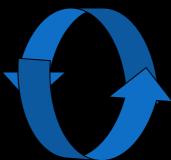


Industry at ClassRoom..





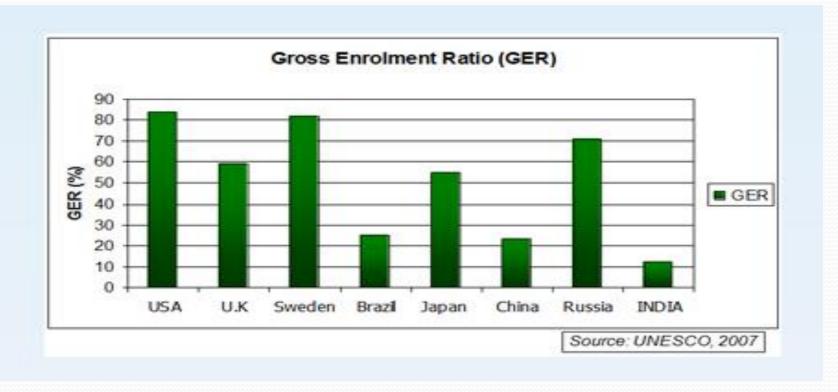


Technical Education: Integrated with Industry

Agenda:

- > Technical Education : Opportunities and Challenges
- **Bihar**: Sunrise Business Sector
- Project: Industry at Classroom
- State of Project
- > IAC: The Team
- Industry : Integrated with Technical Education

Higher Education: Global Perspective



- Europe and USA has annual intake of 100000 and 75000 respectively, 2006 data
- China graduates 600000 engineers, 2006 data
- Density of technical institutions in India less than USA
- The U.S. awarded 758 degrees per million citizens. China gave 497 degrees per million citizens, and India 199

Lacuna to India Technical Education

National Knowledge Commission Report : Sam Pitroda

The Committee to Advise on Renovation and Rejuvenation of Higher Education: Prof Yash Pal

- No Industry Interaction
 - Academia out of sync with industry process.
 - Industry losing momentum due to lack of skilled workforce
 - Unemployable workforce to industry.
- Lack of Quality Faculty
 - Faculty out of sync with technology.
 - No impetus to Research and Development.

Lacuna to India Technical Education

National Knowledge Commission Report : Sam Pitroda

The Committee to Advise on Renovation and Rejuvenation of Higher Education: Prof Yash Pal

- Outdated Curriculum and Syllabi
 - Technology change at rapid rate.
 - Engineers ill-equipped for industry.
 - Resource crunch to industry.
- Education in Isolation
 - No engagement with international universities.
 - Lacks collaboration with research.

Lacuna to India Technical Education

National Knowledge Commission Report : Sam Pitroda

The Committee to Advise on Renovation and Rejuvenation of Higher Education: Prof Yash Pal

- Lack of Infrastructure
 - Minimal Infrastructure
 - Ill equipped labs, outdated equipments.
 - No new age technology solutions
- Commercialization of Education
 - Management In-Exposure
 - Beyond reach of meritorious students
 - Inorganic distribution of institutes across states. States like Bihar at receiving end.

Bihar

Technical Education: Sunrise Business Sector

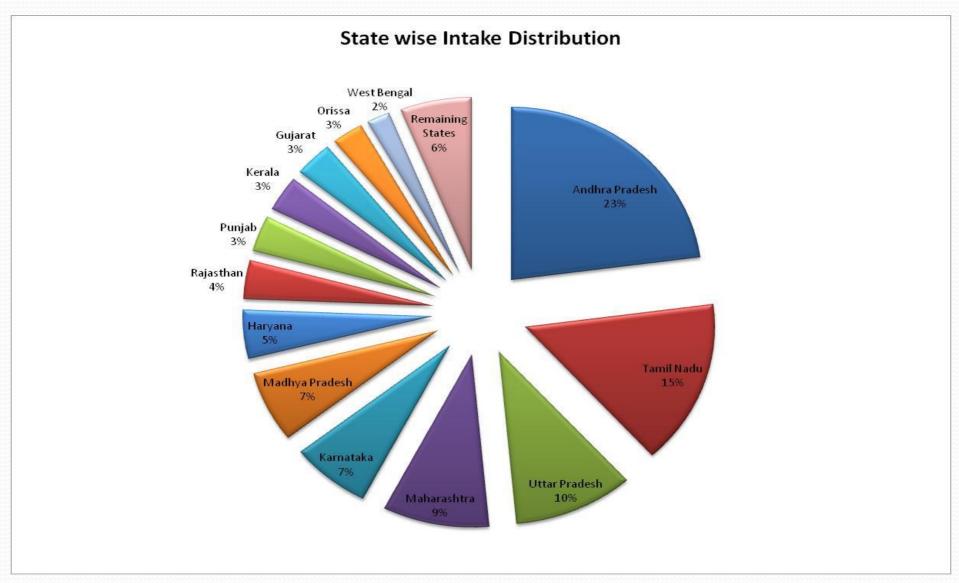
Expansion of Higher Education

Enrolment and Gross Enrolment Ratio

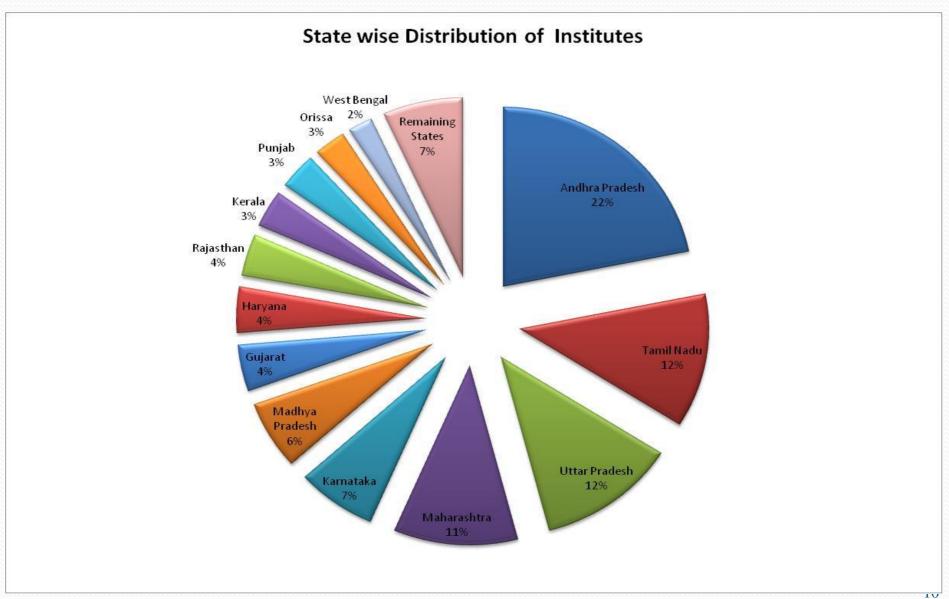
- Present enrolment (2008) :
 - 124 lakhs in General Higher Education
 - 45 lakhs in Technical & Professional Education
- Target GER : 30% by 2020
 - 16% by 2012 (End of XI Five Year Plan)
 - 25% by 2017 (End of XII Five Year Plan)
- Estimated Additional Enrolment of :
 - 55 lakhs by 2011 12
 - 177 lakhs during 2012 17
 - 288 lakhs during 2012 20

Source: Ministry of Human Resource Development

State of Technical Education



State of Technical Education



State of Professional Education in Bihar

Excerpt of Research Paper by Journal "South Asia Voice" on Higher Education of India:-

Engineering Schools per State

| State | Engineering Degree Colleges per Million |
|----------------|---|
| Maharashtra | 2.2 |
| Andra Pradesh | 3.5 |
| Karnataka | 2.4 |
| Tamil Nadu | 4 |
| Haryana | 2.3 |
| Jharkhand | 0.3 |
| Orissa | 1.2 |
| Assam | 0.25 |
| Bihar | 0.13 |
| Madhya Pradesh | 1.4 |
| Kerala | 2.1 |

Technical Education -vs-Industrialisation

Excerpt of Research Paper by Journal "South Asia Voice" on Higher Education of India:-

"While it is fairly well-known that states such as Bihar and Uttar Pradesh have below average social indicators and much work needs to be done in terms of basic literacy and primary health care, what is less known is how the recent success of the four southern states in attracting high- technology investment to their shores has much to do with their significantly higher pool of qualified computer science and engineering graduates compared to other Indian-states".

*http://india_resource.tripod.com/higher-education.html

Bihar: Opportunities in Higher Education

Technology Education: The Sunrise Business Sector

- Highest Awareness Towards Science and Technology
- Every 2 of 3 Students Opting for Engineering
- 400K 10+2 Science Students Pass Each Year
- Handful Technology School : No Industry Exposure
- Students Move to South India to Pursue Engineering and Management: 750+ Crore Industry
- Government Wooing Investment in Technology Education

Estimated Market Size of Almost 40000 Engineers

State of Technical Education in Bihar

- Diploma
 - No of Institutes: 14
 - **☐** No Of Seats: 4400
- ☐ Under-Graduate Engineering Program.
 - □ No of Institutes: 9
 - **☐** No of Seats: 3400
- ☐ Industrial Training Programs
 - □ No of Institutes:
 - □ No of Seats:

Challenges Ahead

- Industry ???
 - Affects Quality of Students.
 - No Campus Placement.
 - Lack of Collaboration with International Universities
- Unavailability of Quality Faculty
 - National Phenomenon: Teaching An Underrated Profession.
 - Faculty Not Upgraded With Industry Requirement.
- Infrastructure
 - Erratic Power Supply .
 - Small Towns Lacks Quality Life Support.

Challenges Ahead

Stream Selection

- Streams Not In Sync With Industry Requirement.
- Allied Streams Better Placed Than Conventional Streams.

The Herd Race

- Excessive Focus on Very High End Infrastructure. Not Needed.
- Less Attention to Quality Delivered.
- High Cost of Education Dissuades Meritorious Students To Sub-Par Government Colleges.

Industry at Classroom

Industry and Academic Bridged

India's 1st Integrated City Merits

Research and Development,
High Quality Workforce,
Industry Incubation : Faculty & Students.
Project Execution for Broader Industry.

Academic Venture

Placement to Students,
Faculty and Industry Lectures,
Industry Engagement and Workshops,
Research and Development

Industry Venture

Integrated Campus: Mutual Beneficial

Technical Education

- In-house Industry Interface
 - Students exposed to Technology.
 - Faculty and Students Participate to Industry Projects and Design and Development.
 - Research and Development with International University: IPR's
- Ensures Smooth Campus Placement
- Experienced Engineers Involved Into Teaching
- Rich Gains for Faculty: Job
 Satisfaction and Financial Gains.

<u>Industry</u>

- Skilled Technical Manpower : Custom Tailored for Industry.
- Access to Cheap Human Capital
 - Faculty and Students
 - Development Work Outsourced at Lesser Cost to Execution.
 - Feasibility of Joint R&D's at Much Lesser Cost.
- Access to Research initiatives of International Universities.
- Corporate Social Responsibility.

Phase – I: Technology School

Domain: Vocational Courses – Entry Level

Eligiblity: Higher Secondary and Senior Secondary

Intake Capacity: 300 (Total 5 Streams).

Start of Operation: 2014-15

Affiliation: Industrial Training Institute & NCVT

Phase – I: Technology School

Domain: Diploma Programs Into IT, Paramedical, Nursing

Streams: BCA

BSc-IT

BBA

Lab Testing

Nursing

Intake Capacity: 300 (60 in each stream).

Start of Operation: 2014-15

Affiliation: Franchise Model.

Phase – I: Technology School

Domain: B-Tech Engineering College.

Streams: Computer Science and Engineering

Electrical and Electronics Engineering

Electronics and Communication Engineering

Mechanical Engineering Information Technology

Intake Capacity: 300 (60 in each stream).

Start of Operation: 2015-16

Affiliation: AICTE and Aryabhatt Technical University

Expansion: Automobile Engineering

Instrumentation and Controls.

Renewable Energy

Phase – II: Medicine School

Domain: Pharmacy

Streams: Bachelor in Pharmacy

Intake Capacity: 240

Start of Operation: 2016-17

Affiliation: AICTE and State Government of Bihar

Phase – II: Medicine School

Domain: School of Nursing

Streams: Diploma and Post Diploma Programs

Intake Capacity: 120 (60 in each)

Start of Operation: 2016-17

Affiliation: MCI and State Government of Bihar

Education City

Phase - III: Technology School

Domain: Post Graduate

Streams: M-Tech Microelectronics

M-Tech Embedded Systems

M-Tech Nano-Technology

M-Tech Renewable Energy

M-Tech Instrumentation

Intake Capacity: 150 (30 in each stream).

Start of Operation: 2017-18

Affiliation: AICTE and ATU

Phase - III: Technology School

Domain: Bio-Technology

Streams: Diploma Programme to Bio-Tech

Bachelors Program to Bio-Tech

Intake Capacity: 60 (30 in each stream).

Start of Operation: 2017-18

Affiliation: Bio-Tech Accreditation Institute and Aryabhat Technical

University.

Technology School

Project Cost and Implementation

State of Project

The Organization

Patliputra Educational and Welfare Foundation,
 ...\pewf registrartion jpg\Copy of pewf certificate.jpg

Registration No 2292 (2009), Under Societies Registration Act 21, 1860

Registration office: H/O:- Mr Rajesh Kumar, Near Indian Public School,

South-East Ramkrishna Nagar, Patna – 800027

Land Purchase

- 14.6 Acres of Agricultural Land Purchased in Favour of Patliputra Educational and Welfare Foundation,
- Location: Village Baradih (Thana No 96), P.S Islampur, Nalanda.
- Investment of 40 Lacs to Land Purchase

State of Project

State Investment Promotion Board Approval

- Project Approved From Industry Ministry, Bihar.
- Approved from Science and Technology Ministry.
- Pollution Board Clearance.
- Bihar State Electricity Board Clearance.

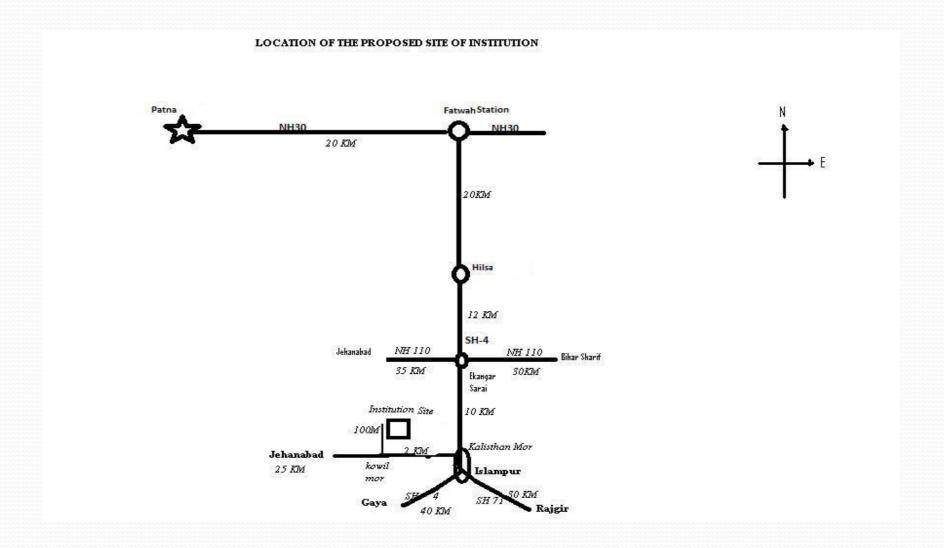
Land Conversion and Administration NoC

- Land Use and Conversion Obtained for 13.59 Acres of Land for Institutional Purpose. ..\..\land_conversion\sdo_land_conversion.doc
- Administration NoC Obtained from Sub-Divisional Officer, Hilsa.

Map Approval and Construction

- Map Approved From Islampur Block Administration and Architect Empanelled with Islampur Municipality
- Construction Started October 2010
- Expenditure Toward Construction Till 31st March 2011: 57 Lacs.

Islampur: Approach Map











Who We Are PEWF!!!

Industry at Classrooms is initiative of Patliputra Educational and Welfare Foundation to promote quality professional education within the reach of meritorious students of the state.

Patliputra Educational and Welfare Foundation:

An organisation registered with Societies Registration Act 21, 1860. Representation of Industry Professionals, Academicians and Social Activist across India, to bring in Pluralistic Change to Human Society.

Website: www.pewf.org

Mukesh Kumar:

Business Manager and Engineer with wide experience with Motorola and Freescale Semiconductor. He has been based in United States, Europe and India in last ten years of technology career, worked on few of most complex next-generation baseband and embedded technology. Mr Mukesh Kumar has co-founded and been senior business manager with LogicFab Semiconductor, offices in Noida, Geneva, Milan and Cambridge, before moving onto Social Enterprise.

Email: mukesh.kumar@pewf.org

Pankaj Kumar:

Mr. Pankaj Kumar is working as senior project manager with Areva Power. Mr Pankaj Kumar has vast experience with installation and erection of power transmission and distribution network in India and Mexico. He did B-Tech into Electrical Engineering from National Institute of Technology, Allahabad.

Email: pankaj.kumar@pewf.org

Sudhir Pandey:

B-Tech qualified from IIT-Kanpur. Mr Sudhir Pandey has been employed with Freescale Semiconductor and Intel, working on Application Processor. Mr Sudhir Pandey is actively involved in promotion of education and awareness towards science at various stages.

Email: sudhir.pandey@pewf.org

Manmit Kumar:

B-Tech qualified from Motilal Nehru Regional Engineering College, Allahabad. Mr Manmit has been employed with Computer Services Corporation under various management responsibilities. He has been actively involved in promotion of technology education.

Email: manmit.kumar@pewf.org

Industry at Classroom Execution and Milestones

Good Infrastructure

- Multimedia Integrated Classrooms.
- Wifi Campus , Intercom Phone Lines.
- Air-Conditioned Reception Hall, Board Room, Meeting Halls, Seminar Hall, Library and Computer Centre.
- Accommodation to Students and Faculty.
 - Separate Hostel to Boys and Girls-Accommodation for 150 Students for 1st Year of Operation.
 - Phasewise Development for Accommodation to Faculty and Support Staff.
 - In Campus Guest House, Shopping Center.
- Amphitheatre, Lawn Tennis and Basketball Court.
- Auditorium Planned 3rd year of Operation.
- Dedicated Space for Industry Incubation and Design Centre.
- Serene Campus: Ambience Towards Higher Education.

Centralized Computer Center and Library

- Networked Computer Centre: Cluster Setup.
- Workstations to Engage Industry.
- Well Equipped Library
 - Impetus on Digital Library.
 - Beyond Academics: Personality Development, Entrepreneurship,
 Business Development etc
 - Technology Integrated With Global University.
- Library and Computer Centre Operational 24 Hours.

Virtual Teaching Centers

- Seamless Integrated Teaching Centres at Noida, Banglore, California and Geneva.
- Lectures Conducted by National and International Faculty & Engineers
 Through Net Meeting and Web Conferences.
- Project Demonstration and Workshops Conducted Through Networks.

Faculty Development

- Faculty: Mix of Industry and Academics.
- Provided with Networked Laptops.
- Faculty Encouraged to Industry Consultancy and Research and Development
- HR Policy to Groom Skillsets of Faculty. Faculty Sponsored For PHd's.
- Salary Perse 6th Pay Commission + Industry Allowance

International Collaboration

- Milan Polytechnic, Italy
- Yale University
- More to Follow ...

Energy Needs

- Power Backups Through Biomass and Solar Energy Setup.
- Street and Corridor Lightings on Solar Panels.
- Rough 6-8 Hours Supplied By Grid.

Location Benefits

- Location Advantage: 60 KM from capital Patna. Patna the Influx Centre of Students to Bihar.
- Education Ambience: The New Age 1000 Acre Nalanda University 15 KMs from Project Site.
- Town Capable To Support Small Education City.
- Connected with Indian Railway: Direct Trains to New Delhi, Calcutta, Patna and Ranchi. Bus Service to South Bihar and Calcutta.
- Approachable with two International airports: Patna and Bodh Gaya.
- Availability of Additional Land Bank.
- Serene Climate: Cusp of Buddhist, Jain Tourist Circuit.

Beyond Business, A Social Enterprise



Lets Make It Happen ...

Contact Details:

Mukesh Kumar

Secretary
Patliputra Educational and Welfare Society

Email Address: mukesh.kumar@pewf.org

URL: www.pewf.org

Head Office Correspondence:

Patliputra Educational and Welfare Foundation, Flat No – TG10, Plot No : 625, Shalimar Garden Extn I Sahibabad, UP, Pin 201005