



# PROSPECTUS

*A Polytechnic With A Difference*

RAMAKRISHNA MISSION SHILPAMANDIRA

**Ramakrishna Mission Shilpamandira**  
(An AICTE Approved Self-Financed Polytechnic)  
Belur Math, Howrah



What we need is to study independent of foreign control, different branches of knowledge that is our own and with it the English language and the Western Science. We need Technical Education and all else which may develop industries, so that men, instead of seeking for service may earn enough to provide for themselves and to save something against a rainy day.

1897

-- Swami Vivekananda

# At A Glance



Swami Shukadevananda  
Secretary



**Correspondent  
Principal  
Name &  
Address**

Swami Vedatitananda  
Swami Gunakarananda  
Ramakrishna Mission Shilpamandira  
208 G.T. Road, Belur Math  
Howrah — 711 202, West Bengal, India

**Location**

On the Grand Trunk Road  
• 8 km from Howrah Rly. Station  
• 2 km from Bally Ghat Rly. Station  
(Sealdah – Burdwan/ Main & Chord)  
• 2 km from Belur Station (Howrah – Bandel)

**Telephone**

(033) 2654 9381/7907  
94330 12463

**Email**

rkmshilpamandira@yahoo.com , rkmstpo@yahoo.co.in

**Web Site**

www.shilpamandira.org

**Year of Estd.**

1954

**Courses**

|   | Seats* |
|---|--------|
| 3 year full-time Diploma in             |        |
| • Civil Engg.                           | 60     |
| • Electrical Engg.                      | 40     |
| • Electronics & Telecommunication Engg. | 60     |
| • Mechanical Engg.                      | 60     |

**Status**

A Self Financing Polytechnic (since 2007)

**Recognised by**

W.B. State Council of Technical & Vocational Education &  
Skill Development (WBSCT&VE&SD)  
All India Council for Technical Education (AICTE)

**Admissions**

Shilpamandira Admission Test (SAT) conducted by the  
Institute every year & as per allotment by WBSCT&VE&SD

**Services**

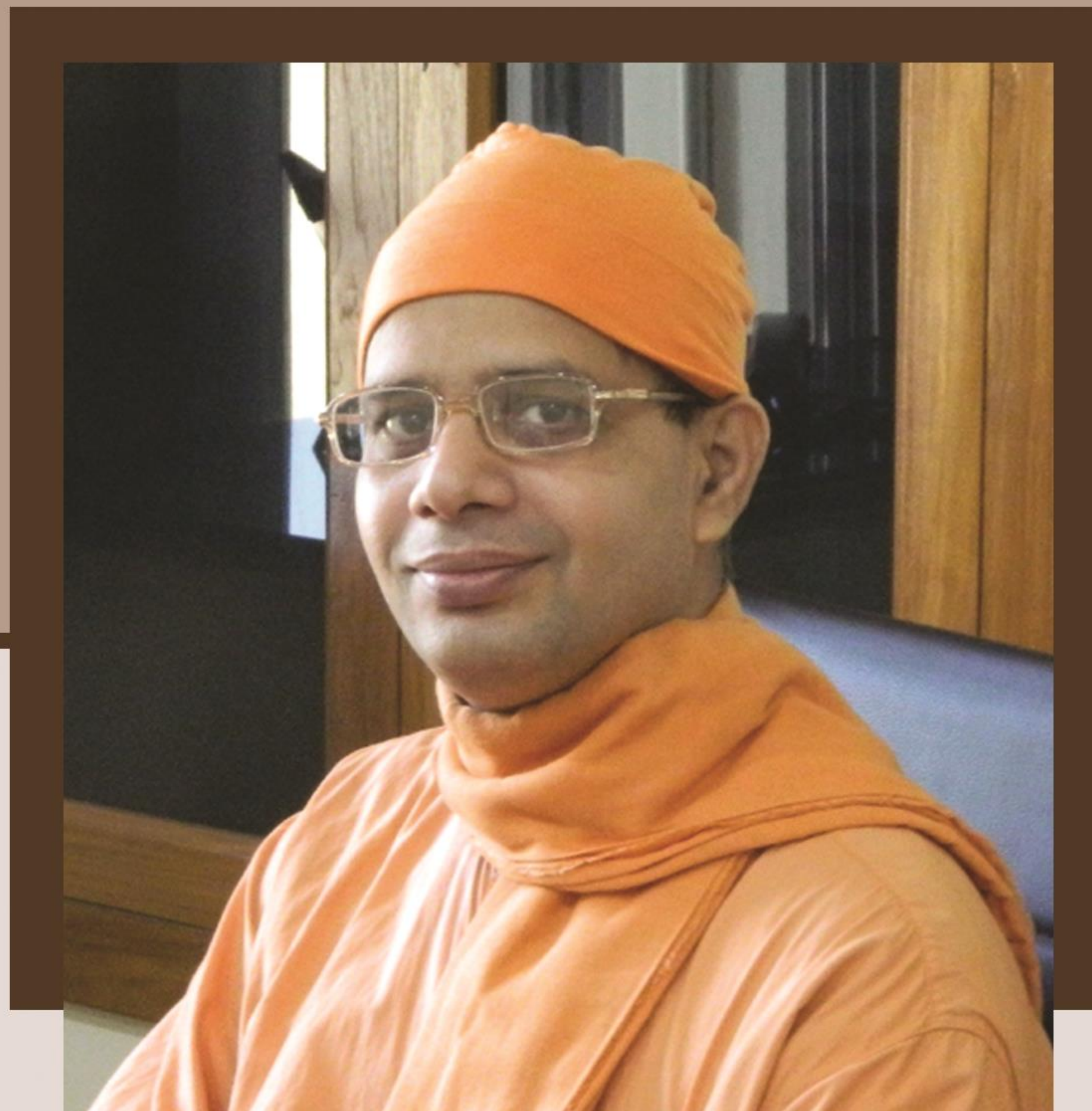
Training & Placement (TPO), Library with over 30,000  
books, Learning Resources Utilisation Centre (LRUC)  
Testing & Consultancy, Infrastructure for Seminars &  
Workshops, Playground (football league size)  
Industrial Visits

**Short Term Training  
Centres**

Computer Centre & Community Training Centre

\*available as per WBSCT&VE&SD guidelines

# Preamble



Over a century ago, Swami Vivekananda, the great disciple of Sri Ramakrishna Paramahansa and the founder of Ramakrishna Mission, traversed the length and breadth of the country. He was deeply pained seeing the pervasive ignorance and poverty across the land. In profound meditation Swamiji realized that the solution lies in extensive spread of true education. Later, while visiting the Western world, he found that its impressive industrial, economic, and social progress became a reality only because of an open and practical education system. He wanted that Indians should become strong in Science & Technology while retaining their traditional ethos founded in spirituality. Such enlightened citizens, he believed, would bring about moral and industrial renaissance and lead to national upliftment

In answer to his vision the Ramakrishna Mission Shilpamandira was started in the year 1954. Initially started as a Government Sponsored polytechnic, Shilpamandira became a Self-financed polytechnic in the year 2007. The Polytechnic offers Diploma in Civil, Electrical, and Mechanical Engineering.

## **Vision of the Institute**

To impart quality technical education to the youth of West Bengal so that they can be competent Engineers who will Excel at their place of work, and also Contribute to National Growth as Enlightened Citizens.

## **Mission of the Institute**

- To provide the students with strong foundational basics of Engineering and allied disciplines in an environment that nurtures universal human values, inculcates scientific spirit, and cultivates a trait of continuous learning & self-development.
- To impart an exposure to students on equipment and methods encountered in industrial workplaces so that they can function as contributing professionals from day one.
- To undertake periodic curricular revision and upgrade the laboratories and workshops so that students get exposure to the latest trends in the technical workplace.
- To create a spirit of excellence among the faculty members through continuing educational activities and projects that reflect current trends in engineering practice.
- To carry out interdisciplinary research, consultancy, and industry-institute partnership to generate practical engineering solutions.

# Our Message

*We* are fortunate to be living at a time of rapid advancement in all aspects of social and professional life. Automation and communication technologies have revolutionized the industrial landscape and transformed the nature of the workplace.

While this modernization drive has opened up many opportunities to the industry, it has also created serious challenges to the academia. Educational institutes face the onerous challenge of training and equipping the students to participate and contribute in this exciting growth story. Apart from technical competency, freshers just out of college are expected to have discipline and motivation to independently handle professional responsibilities.

Thus a diploma engineer as a Polytechnic pass-out student is called has a unique role in today's economy of knowledge workers. The job description is: competent Hands with a thinking Head; a multi-skilled professional able to work in a team, with enthusiasm for constant learning and improvement.

In our new environment with modernized workshops, dedicated faculty, huge infrastructure and blessings of Sri Ramakrishna we are trying to fulfil the vision of Swami Vivekananda of a vibrant comprehensive Technical Institute answering the demands of the Industry and aspirations of thousands of young men ready to take up new challenges of prosperity in a fast changing world.

We look forward to an inspiring interaction with all stake holders in the field.

*Swami Gunakarananda*  
*Principal*

*Swami Vedatitananda*  
*Correspondent*

Ramakrishna Mission Shilpamandira  
Belur Math, 1 June 2024



# Departments

## Mechanical Engineering

*M*anufacturing sector is the pivot around which revolves the prosperity of all industrialized nations. The manufacturing industry depends heavily on Mechanical Engineering. As we move into a world of increasingly pervasive automation technology, the role and scope of an engineer in this discipline is being redefined. Training in Computer aided design and manufacturing, CNC Machining, 3d Printing, and Robotics, have become essential. Our Mechanical Engineering students are provided in-depth training in traditional manufacturing technologies and workshop practice including welding, turning, planing, shaping, milling, fitting, and foundry, as also in aspects of thermal power, fluid machines, hydraulics & pneumatics, refrigeration & air-conditioning, and automobile engineering along with conventional as well as computer aided drawing, designing and manufacturing.



## Civil Engineering



*C*ivil Engineering is as old as human civilization, and is rightly considered to be the base of all branches of Engineering. As the world is faced with an explosion of population, efficient and innovative technologies are needed for infrastructure development in the various sectors such as manufacturing, housing, transportation, water resource management, and environmental engineering. The areas in which students will be given proficient training including Soil mechanics, Surveying, Engineering drawing, Building materials, Structural design including RCC, Water management, Costing and valuation, and Transportation engineering. Also Civil Engg. students have lot of scope for self employment in construction, surveying, structural design, detailing and advance training is given for such purpose.

# Departments

## Electrical Engineering

Electrical energy is the driving force that runs industries. As manufacturing world moves forward bringing in greater incidence of precision equipment at all levels of society, the demands for power and its control & regulation are also increasing. New generation electrical engineers need to be competent in dealing with modern machines, drives, power electronic converters, microcontrollers & programmable controllers. The students of the department will be provided rigorous training along with theoretical background in AC and DC machines, Industrial Drive Systems, PLC Controllers & Robotics, Power Generation, Transmission and distribution, Switchgear & Protection, Analog, Digital and Industrial Electronics, and Instrumentation.



## Electronics & Telecommunication Engineering



Communications and signal processing technologies emerged as important fields of activity over a hundred years ago. With the advent of solid-state electronic devices after the 2nd world war, these technologies got transformed and created a whole new industry. A wide range of instruments and appliances are being created both for stand-alone applications, as well as for enhancing the scope and precision of conventional engineering techniques. Embedded systems working in real-time control mode in the form of Internet of Things (IoT) have penetrated into all branches of engineering., Today's Electronics and Telecommunications engineers need to possess skill and knowledge in dealing with analog and digital systems, communication engineering, embedded systems, industrial electronics, and networking. Students of the department are provided rigorous practical training along with necessary theoretical background in analog and digital electronics, consumer electronics, microwave and mobile telecommunications, sensors and microcontrollers, PLCs and automation.

# Curricular Activities



In the emerging world of technology, engineers are getting greater freedom, and responsibility, to take independent on-the-spot decisions to perform multifaceted tasks. A deep understanding of the fundamentals of science and engineering is the foundation which gives the necessary background to assess the different situations and take rational technical decisions.

The only way to obtain depth and competence in technical skill is through a thorough grounding in labs and workshops. We give individual attention to ensure that each student gets comprehensive hands-on training in the labs and workshops, the necessary theoretical inputs as well as the attitude and aptitude for continuous learning which is invaluable in the fast changing technological scenario of today's world.

Challenges draw the best out of an individual. There is the thrill of problem-solving and the pride of victory in overcoming difficult situations. Even in educational institutions, students manifest their creative talent and consolidate the skills learnt when confronted with challenging Projects. Reverse engineering is used as a learning-aid as also the starting point in exploration for innovative improvements.

Time-management, material management are skills truly learnt only in a work-environment. Such professional skills are the essence of competence. Each semester, students may be required to participate in Industry standard projects under simulated work conditions for their competency enhancement.



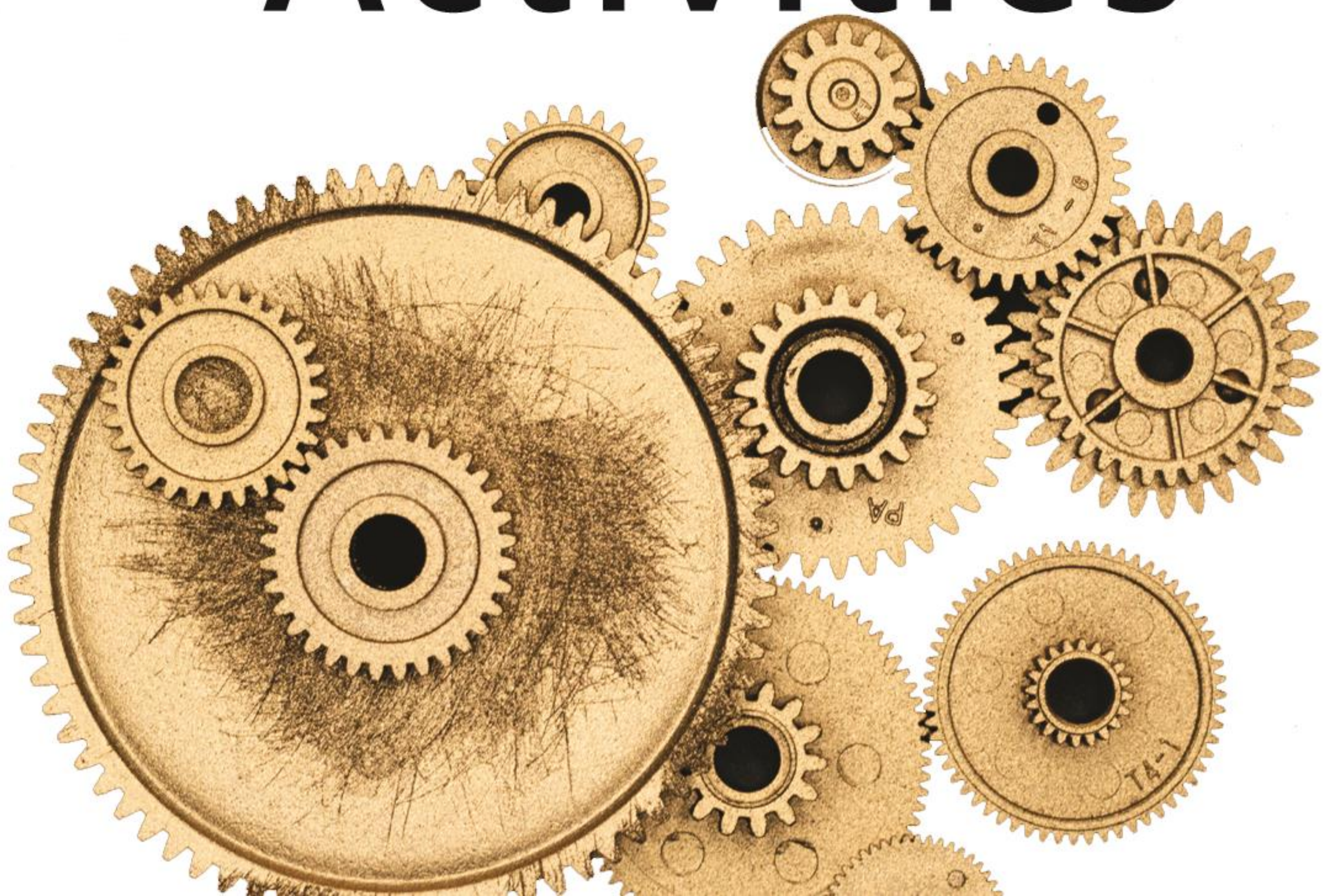




# Curricular Activities

Unlike in a written test where time is available for thinking, a technician in the field has to take on the spot decisions and be able to explain the rationale involved in his decisions. This aspect of thinking on one's feet can be best developed by participating and presenting one's work in seminars.

Technical seminars will be held each semester, where students deliver presentations on topics decided in consultation with the faculty.



## Co Curricular Activities



*A* strong personality is the basis of all excellence. To have deep convictions and the strength to follow them; to be able to work in a team, adapting to situations while not compromising on the fundamental values; to have professional pride and self-respect, and the necessary quality-consciousness and vision. All these things must be inculcated and developed through conscious effort. Towards that end it is necessary to do regular introspection and orientation towards the Source of all energy, latent in the heart of each one of us. This is achieved through prayer and meditation sessions every day. Meditation not only clears one's doubts and makes mind focused, it also gives a sense of well-being and strength born of character.



Practical Engineering is a strong combination of Science, Technology, Management, and Economics. It is fundamental that all engineering products and services must be financially viable, and the skill of the engineer lies in balancing and optimizing on all fronts. These are essentially entrepreneurial skills. Through workshops and design projects, students will be trained in entrepreneurial and intreprenurial skills, so that they may blossom into irreplaceable professionals either in business or in service.

Along with technical skills, soft-skills are needed for successful careers in today's workplace. These include verbal as well as written communication, involvement and productive participation in group discussions, initiative, and, body language and attitude that instil confidence and put colleagues at ease. Students will be sensitized on a variety of these aspects so that they would be able to face the world boldly and with assuredness.

Collaborative activities such as Group discussions will be conducted for understanding group dynamics and developing Team Building skills. Students will be required to participate in co-curricular activities such as Mock Interview, Quizzes, Seminars, Online Exam, General & Technical Aptitude Test etc. organised for sake of their overall development.



Performance Report of every student is maintained by our Training Placement Officer (TPO) every year & it's summary is presented to visiting Industries for Placement.





# Rules & Regulations

## • Eligibility

Only Male students (under 21 yrs. Age) having passed Madhyamik (or equivalent) can admitted based on Rank in Admission test (SAT). Valid Rank issued by WBSCT&VE&SD is mandatory for Admission.

## • Admission Charges

A one-time Admission Charge of ₹ 10,000 is payable at the time of admission into 1st Semester.

## • Session Fees

Total session fee for each year including the Tuition fee, Development charges, and Student activities charges payable in two instalments, at the beginning of each semester, which will be informed from time to time.

Fees are accepted between 11 a.m. and 2 p.m. in cash counter on all working days except otherwise notified.

### Payment can be made through:

1. SBI Collect (<https://www.onlinesbi.sbi/sbicollect>) using UPI, Net Banking or Rupay Debit card, or
2. Demand Draft drawn in favour of "Ramakrishna Mission Shilpamandira", payable at Belur Math.

Fees and charges once paid are not refundable.

## • Scholarships & Awards

The institution does not guarantee scholarship to any student. However, a limited number of merit-cum-means scholarships and awards are offered to students each semester. Students are encouraged to apply for Government and Corporate scholarships.

**\* Institute does not offer hostel facilities.**



### • Expenses On Equipment

**S**tudents on joining the Institution have to procure T-square, Drawing instruments, text books and other necessary articles. During the second and third year classes each student will have to purchase few additional text books and equipments. Further they will have to undertake educational tours, industrial training and/or attend survey camp at their own expenses.

### • Identity Card

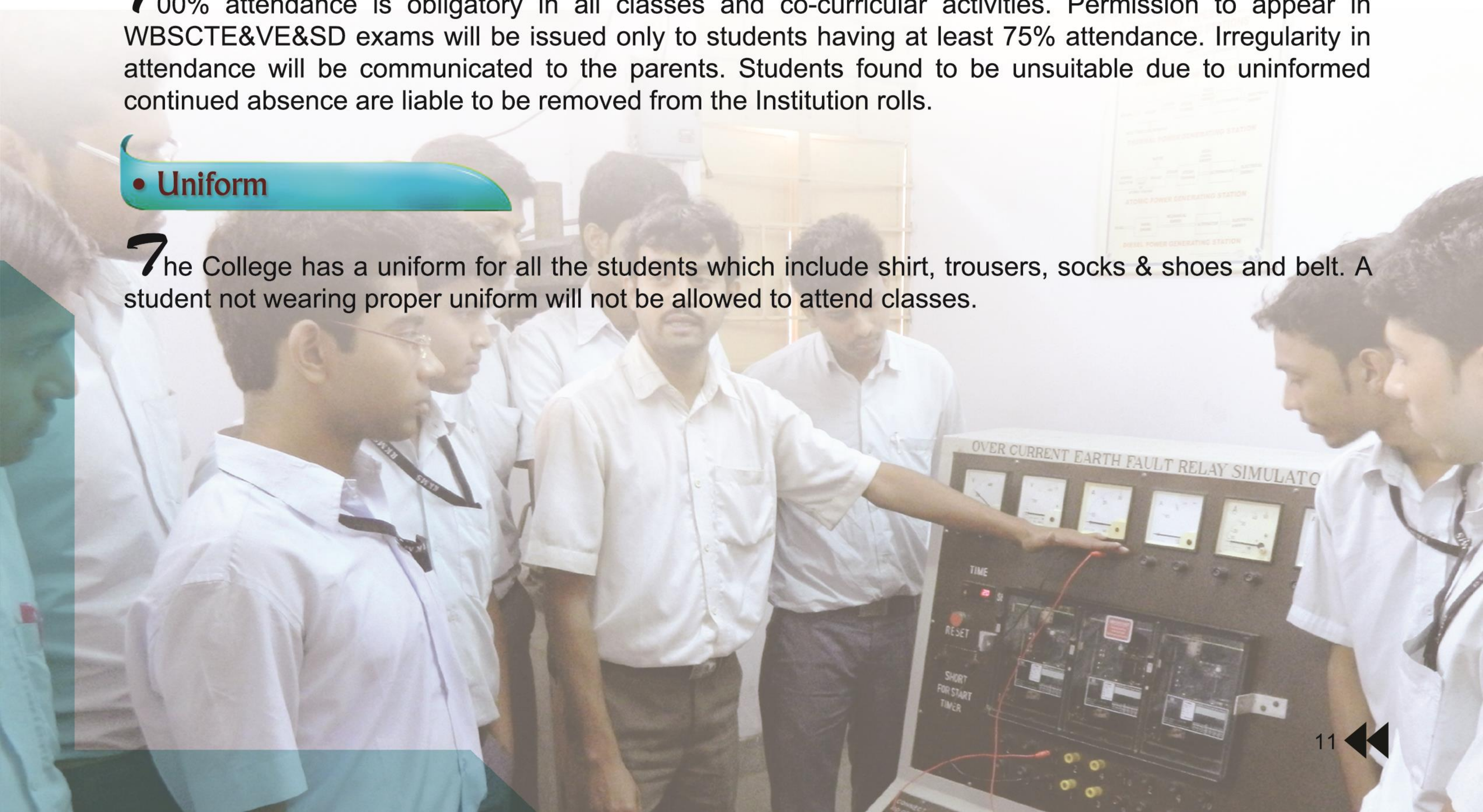
**A** student identity card will be issued by the institution which should be produced on demand. Loss of the identity card must be immediately reported to the Office and a duplicate card obtained on payment of ₹ 100.

### • Attendance

**1**00% attendance is obligatory in all classes and co-curricular activities. Permission to appear in WBSCTE&VE&SD exams will be issued only to students having at least 75% attendance. Irregularity in attendance will be communicated to the parents. Students found to be unsuitable due to uninformed continued absence are liable to be removed from the Institution rolls.

### • Uniform

**T**he College has a uniform for all the students which include shirt, trousers, socks & shoes and belt. A student not wearing proper uniform will not be allowed to attend classes.



# Rules & Regulations

## • Workshop And Laboratories

Students are not allowed to enter a Workshop or Laboratory in loose garments or without shoes. Students are advised to follow the instructions given in the laboratories and workshops from time to time.

The institution does not take any responsibility for any accident, loss or damage sustained by a student in course of his training.

## • Examination & Continuous Internal Assessment

To monitor the extent of comprehension of students, continuous internal assessment will be conducted. Attendance at all tests held by the Institution is compulsory. Students must abstain from adopting any unfair means in the examination.

## • Discipline

The following are some of the important rules of institution.

- i) The students must attend the morning assembly punctually and take seat in their respective classes by the time the class bell rings.
- ii) When a Lecturer/Instructor is absent or unable to take his classes students must maintain strict order among themselves so as not disturb other classes. They must contact their mentor about alternative arrangements made for the class.
- iii) In case of sickness, the guardian of the student concerned is required to inform to the Office immediately. Students and guardians must discuss with the mentor the implications of unavoidable absence and prepare themselves for the consequences including any remedial plans.



- iv) Students absenting themselves from classes without informing the mentor will be subject to disciplinary action.
- v) Students must in their deeds and words show regard to the college, teachers and fellow students.
- vi) Ragging is strictly prohibited.**
- vii) Misuse of Railway concession is punishable by fine.
- viii) Use of mobile phone is prohibited during college hours.

The above rules or any other rules as may be framed from time to time by Institution should be strictly adhered to. Non-compliance could result in disciplinary measures ranging from fine, suspension, to expulsion from the Institution. The authorities reserve the right to alter the rules and regulations at any time as they deem fit and this will be binding on all concerned.



# Academic Schedule

- Semester System

**O**dd Semester: July to November (Exams in December)

**E**ven Semester: January to May (Exams in June)

- Class Hours

**M**onday to Friday : 10:00 — 17:00 hrs., Saturday : 10:00 — 13:30 hrs.

- Course Contents

**S**yllabus set up by WBSCTE&VE&SD will be broadly followed

- Exams

**S**emester end (December & June)

- Holidays

**A**s declared every year

- Training & Placement

**F**ield Trips, Industry visits & Seminars arranged as per College Schedule

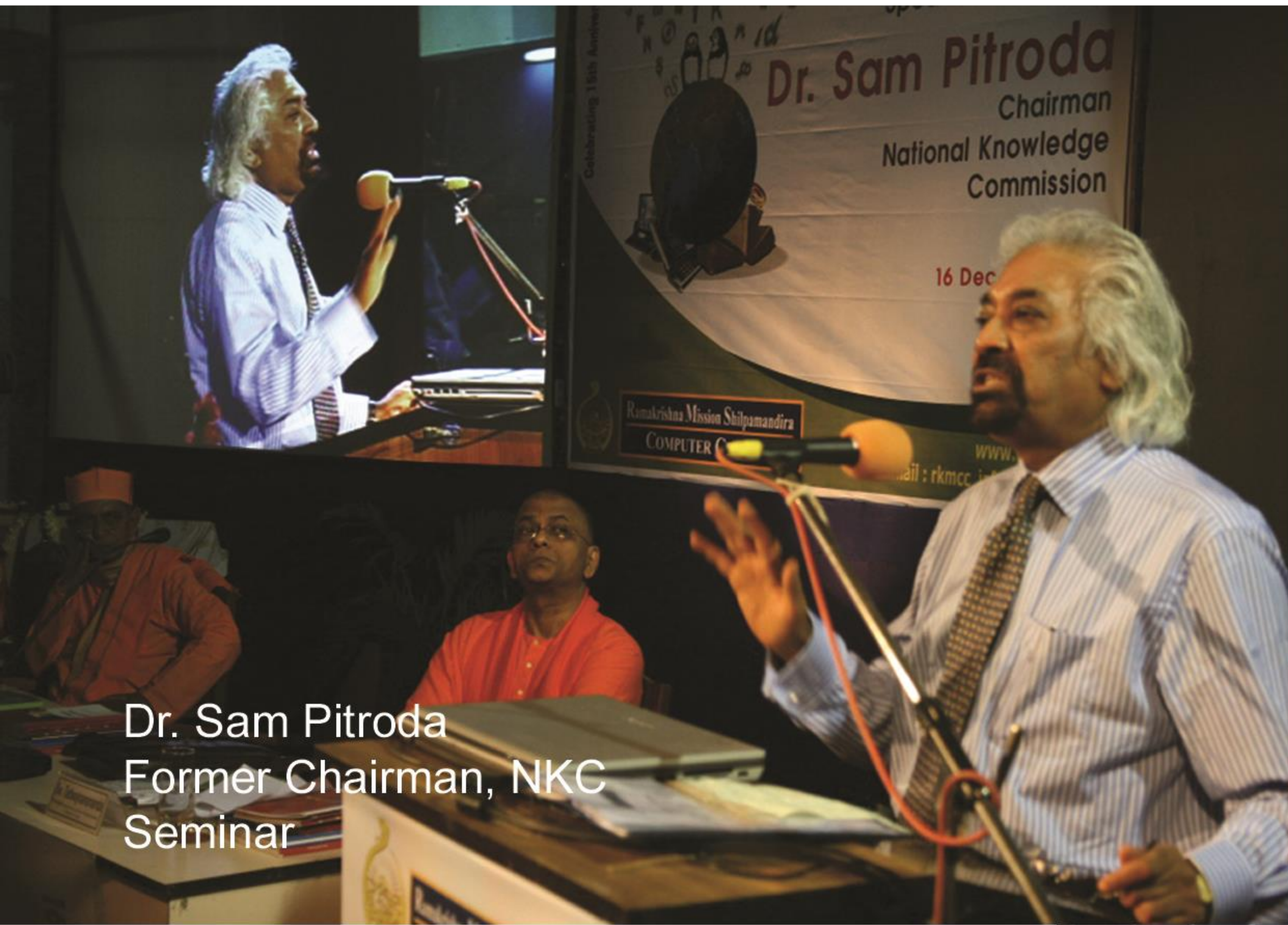
**O**ur students are much sought after by the industry because they get rigorous training in technical skills as well as personality development needed at workplace. Students are also sent for Practical Training in 2<sup>nd</sup> and 3<sup>rd</sup> year at reputed companies to acquaint them with modern industrial practices. The institute has outstanding campus recruitments record with 100% placement assistance to eligible students in the past several years. Some of the recent recruiters include:

- Arcelor Mittal
- JK Tyre
- Shapoorji Pallonji
- Wood India
- Jindal Stainless Steel
- Voltas
- Haldia Petrochemicals
- Aditya Birla Paints
- L&T
- ITD Cementation
- Addverb Technologies
- Merino Industries Ltd.
- Ashok Leyland
- Volvo
- Techno Electric
- IndianOil Adani Ventures
- Tega Industries
- Tata Steel
- Tata Motors
- Tata Hitachi
- Blue Star
- Kaynes Technology
- Ambuja Neotia
- Makino





# Glimpses



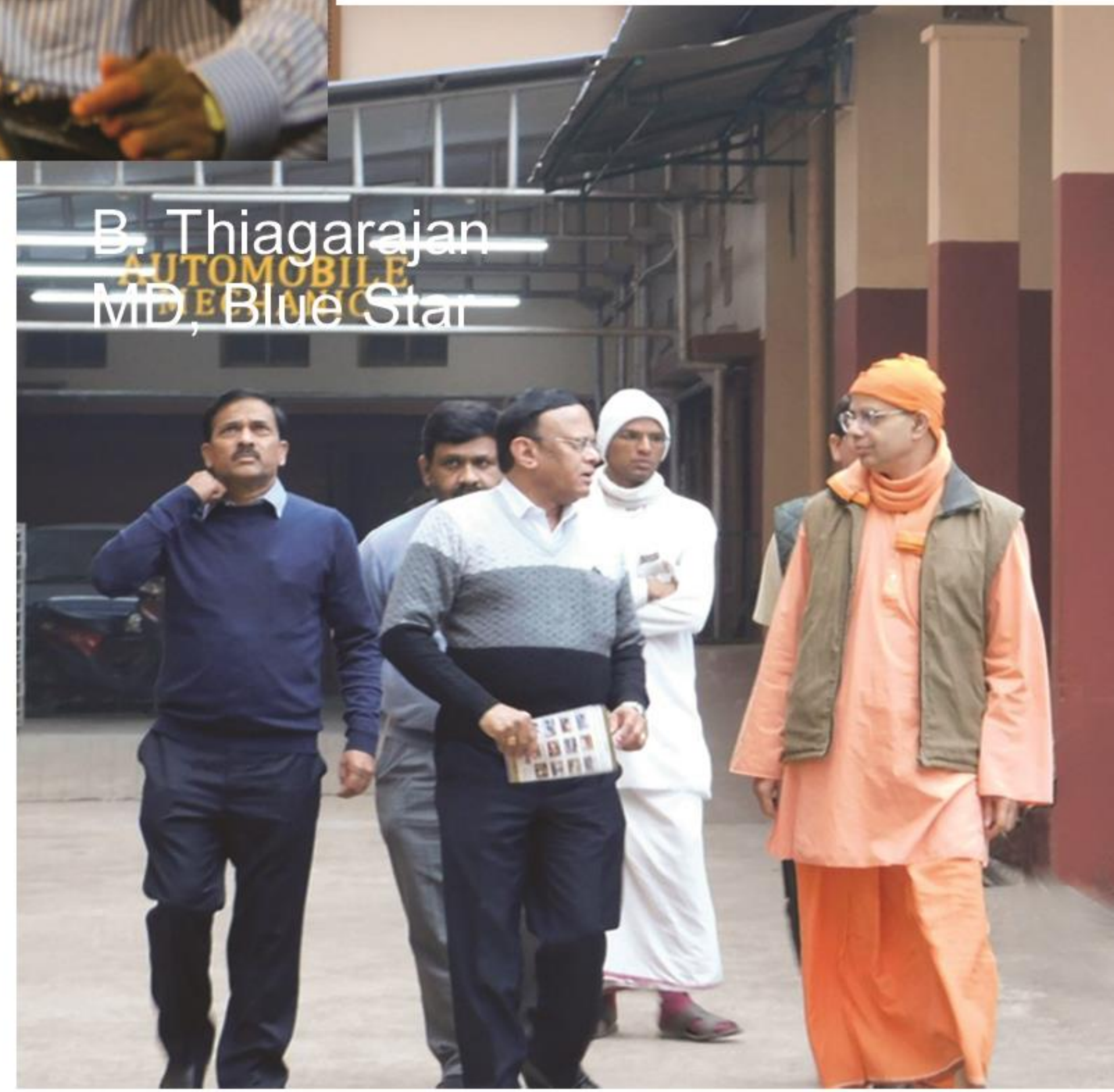
Dr. Sam Pitroda  
Former Chairman, NKC  
Seminar



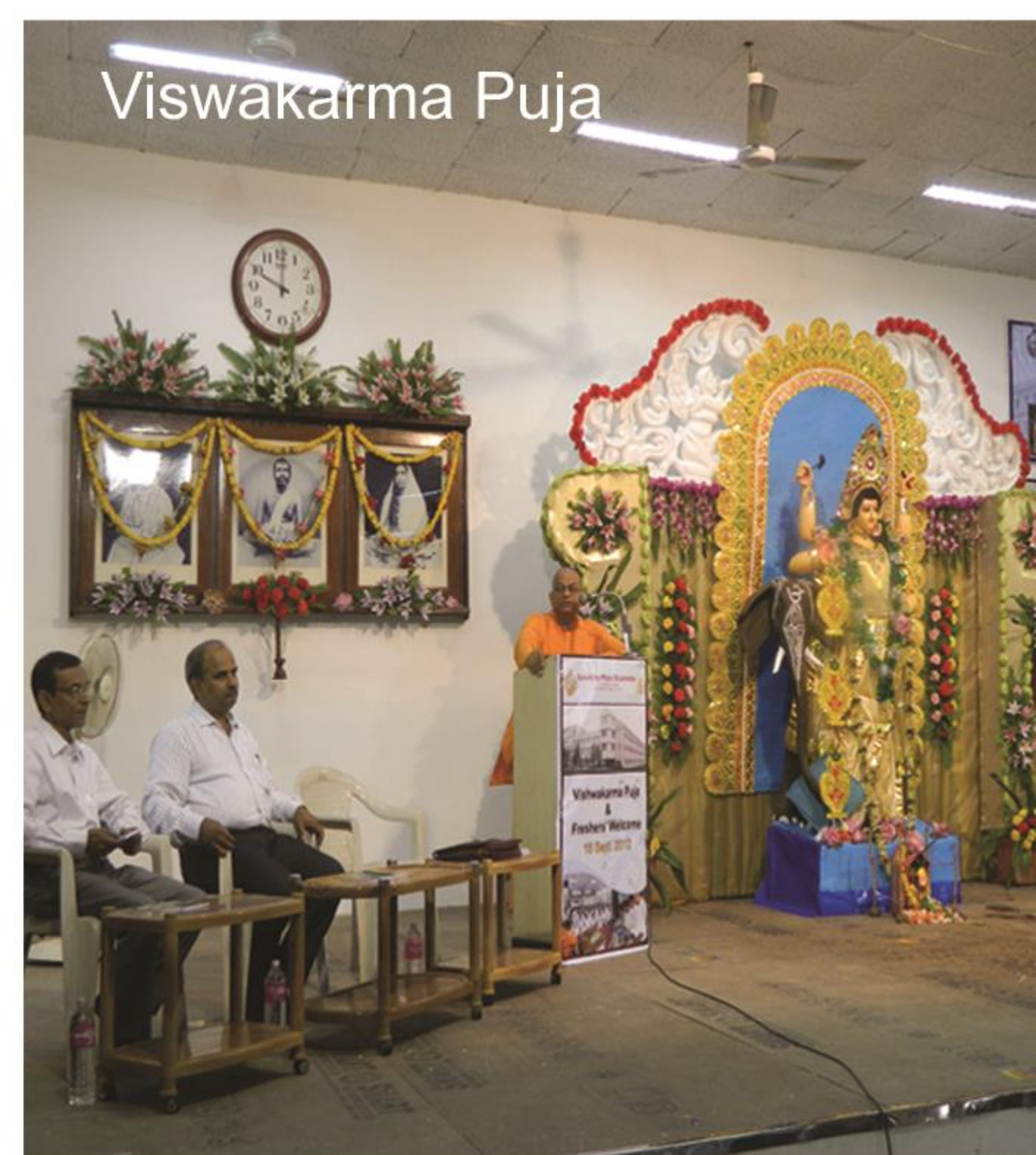
N. R. Narayana Murthy  
Former Chairman, Infosys  
Seminar



Saraswati Puja



B. Thiagarajan  
MD, Blue Star



Viswakarma Puja



Industry Interaction

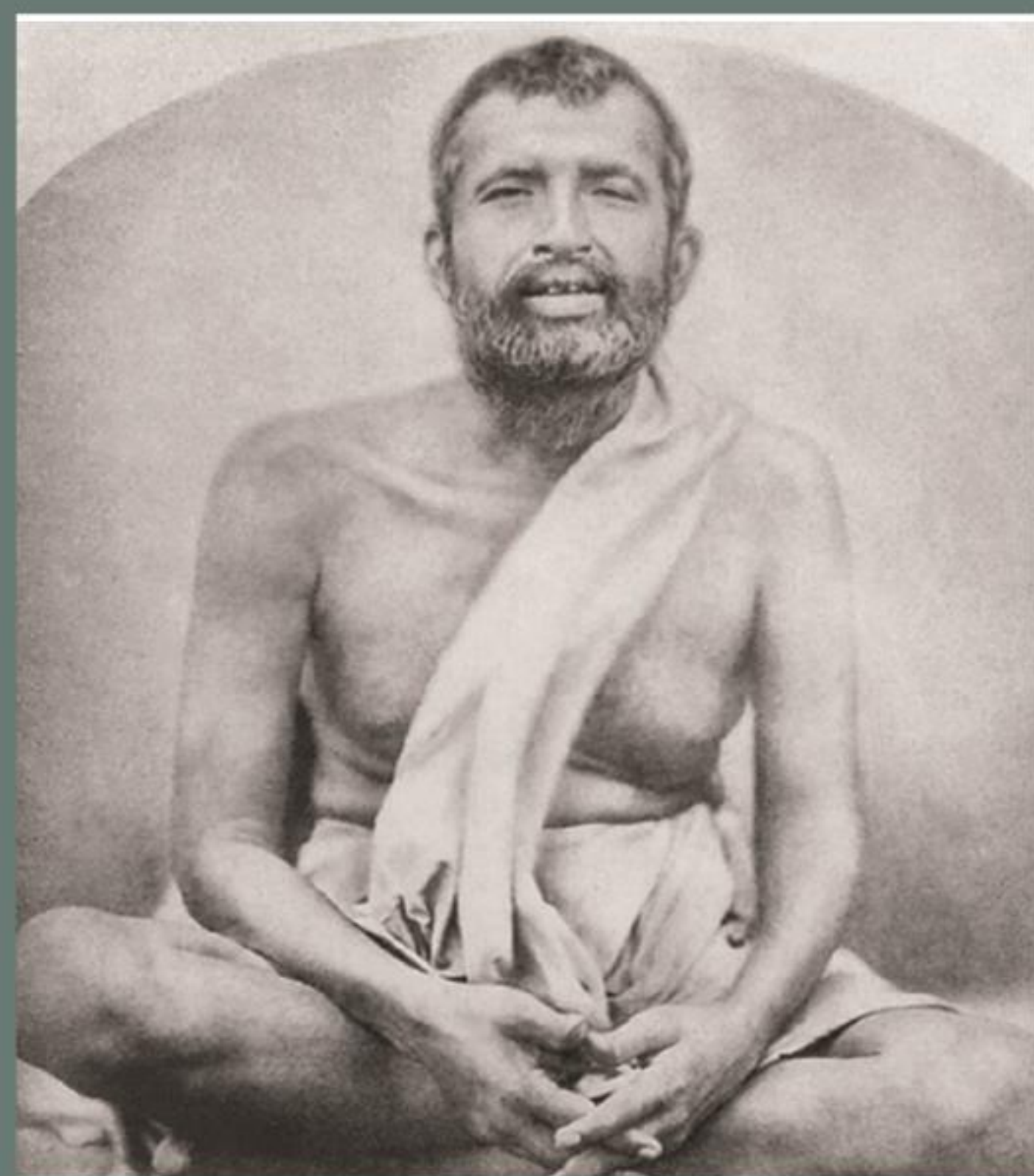


Prize Distribution

“In this Math, along with the cultivation of philosophy and religion, a full-fledged technical institute will have to be established. The power that will have its rise from here will flood the whole world and turn the course of men's lives, providing a life-giving impetus to the remotest corners of the globe. This is our faith and we have girded up our loins to achieve this very objective to the best of our capacity.”

Year:1897

-- Swami Vivekananda



Sri Ramakrishna



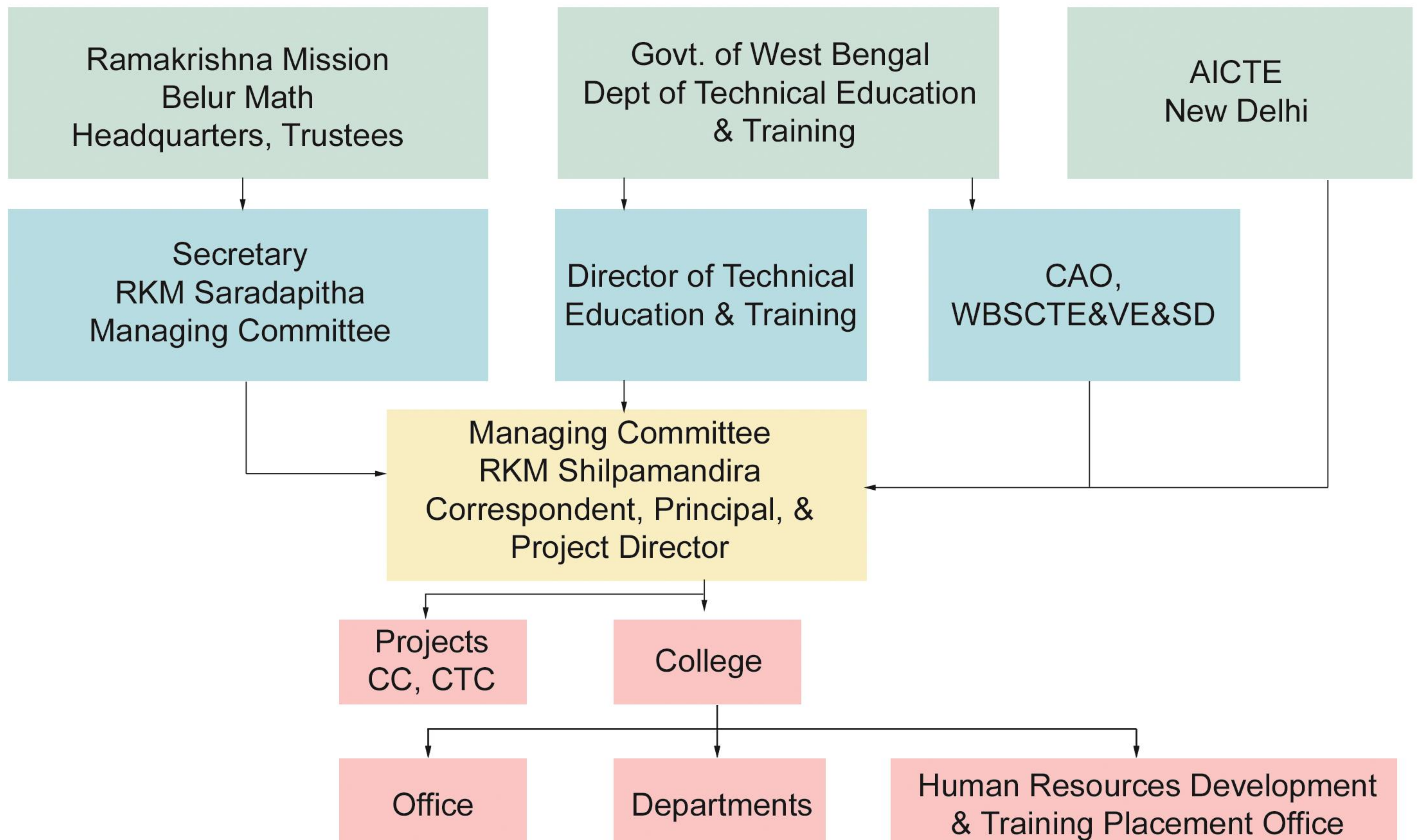
Sri Sarada Devi



Sri Ramakrishna Temple, Belur Math

- "A Symphony in Architecture Ramakrishna Temple Belur Math"  
-- by Swami Tattwajnanananda
- "Hemanta Smaraka" Reminiscences of a Dynamic Monk of Ramakrishna Order

# Organisational Structure



## Managing Committee Members

|                           |                |                                     |        |
|---------------------------|----------------|-------------------------------------|--------|
| • Sri Birenjit Kumar Paul | President      | • Swami Vidyamritananda             | Member |
| • Dr. Gautam Bhattacharya | Vice-President | • Swami Sarvottamananda             | Member |
| • Swami Shukadevananda    | Secretary      | • Sri Saibal Mukhopadhyay           | Member |
| • Swami Vedatitananda     | Correspondent  | • Director of Tech. Edn. & Training | Member |
| • Swami Gunakarananda     | Principal      | • CAO / Nominee, WBSCT&VE&SD        | Member |
| • Swami Suvidyananda      | Treasurer      | • Works Manager, Hindalco, Belur    | Member |
| • Swami Gunindrananda     | Member         |                                     |        |



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