Admission into Blended-mode M. Tech. in "Electric Vehicle Technology"

IIT Bhubaneswar invites applications for the upcoming Autumn 2027-28 session from interested candidates working at an established industry in India as engineers for at least two years or more for Blended-mode M.Tech. in "**Electric Vehicle Technology**" programme (in blended mode – lectures will be via online mode during evenings or weekends, laboratories and all examinations will be conducted in-person mode). The program is being offered in association with evACAD.

Programme details:

The proposed Blended-mode M.Tech. in Electric Vehicle Technology is offered for engineers who have been working / or have worked in industry/plant for two years or more and are thus aware of the technological developments happening in the field of Electric Vehicles (EV) and are looking to extend their knowledge and update their qualifications with a view to career advancement. Engineers from industries, including the automotive, and non-automotive may participate in this program. It does not require GATE qualification but selections will be made through a procedure of evaluation of applicants. This proposed programme will help build the fundamental knowledge base needed for various aspects of automotive electrification domain such as powertrain, batteries, charging etc. The technical and management aspects of EV technology will be covered so as to prepare the student for a range of roles associated with design, maintenance and training in various technical domains.

The minimum time required to complete the program is two years. However, it can also be completed at relaxed pace within five years. The admissions will be made open once a year (i.e. Autumn Semester).

Essential qualification:

- B.Tech or equivalent in Mechanical Engg., Electrical Engg., Electronics & Communication Engineering and other relevant equivalent degrees with minimum 60% marks (or 6.5 CGPA on a 10- point scale).
- Minimum 2 years of experience in industry at engineering level.

Shortlisting criteria:

Shortlisting will be done based on marks scored in B.E./B.Tech. or equivalent.

Selection procedure:

Shortlisted candidates will have to appear for interview (in-person) and selection process will be based on the performance during the interview.

Applicants are advised to carefully review the programme regulations available at:
https://www.iitbbs.ac.in/wp-content/uploads/2024/01/Blended-Mode-MTech-Regulations.pdf

Application fee (Non-refundable): Rs. 500

Fees structure:

S.No	Tuition fee component	Rs.	Remarks
Part-A			
1.	Registration fee (one-time)	25,000/-	One time (valid for 5 years). After 5 years, Rs. 5,000/- per semester
Part-B			
1.	Tuition fee for lecture/lab course	1000/- per hour	42 hours for 3 credit course, 54 hours for 4 credit course
2.	Tuition fee for project work	40,000/-	For every 4 credits
3.	Tuition fee for seminar course	1000/- per hour	3 contact hour per week

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Curriculum of M. Tech. Programme in “Electric Vehicle Technology”

Semester	Course Name	Code	L-T-P	Credit
1 (Autumn)	Electric Vehicle Systems	ID6L301	3-0-0	3
	Traction Motors, converters and drives	ID6L302	3-0-0	3
	Battery Technology for EVs	ID6L303	3-0-0	3
	EV sub-systems laboratory – I	ID6P301	0-0-3	2
	Elective - I	XXXXXX	3-0-0 / 3–1-0	3 / 4
	Seminar*	ID6S301	0-0-4	3
	Semester-wise credits			17/18
2 (Spring)	Control System in Electric Vehicles	ID6L304	3-0-0	3
	Design of Electric Vehicles	ID6L305	3-0-0	3
	EV sub-systems laboratory – II	ID6P302	0-0-3	2
	Elective - II	XXXXXX	3-0-0 / 3–1-0	3 / 4
	Elective - III	XXXXXX	3-0-0 / 3–1-0	3 / 4
	Project - Part I	ID6D301		2
	Semester-wise credits			17/19
3 (Autumn)	Elective - IV	XXXXXX	3-0-0 / 3–1-0	3 / 4
	Project - Part II	ID6D302	---	14
	Semester-wise Credits			17/18
4 (Spring)	Project - Part III	ID6D303	---	14
	Semester-wise credits			14
	Total credits			65 / 69

List of Electives:

Elective	Course	Code	L-T-P	Credit
I & IV	Battery thermal management systems	ID6L306	3-0-0	3
	Vehicle Dynamics	ID6L307	3-0-0	3
	Switched Mode Power Conversion	EE6L051	3-1-0	4
	Soft computing and applications	ME6L060	3-0-0	3
II & III	Engineering Measurements	ME6L009	3-1-0	4
	Charging Infrastructure	ID6L308	3-0-0	3
	Maintenance, Diagnostics and Prognostics	ID6L309	3-0-0	3
	Engineering Design Optimization	ME6L007	3-0-0	3

* In the ‘Seminar’ course the students are exposed to state-of-the-art methods EV Technology. Senior industry experts are invited to interact and share their knowledge. In addition, the students are required to give seminars on assigned topics. An examination is conducted on the items learned by students.

For detailed syllabus of the subjects Click Here.