

## B.Tech CSE and B.Tech CSE (Hons.) – Highlights

Highlight/Parameter	B.Tech	B.Tech (Hons.)	Perceived Benefit (Hons.)
<b>Eligibility and Admission Criteria</b>	<b>Eligibility: 60%</b> with LPUNEST	<b>Eligibility: 70%</b> with LPUNEST (higher cut-off in LPUNEST compared to B.Tech)	<b>Being among the high achievers, you will be able to take advantage of the peer-to-peer learning and</b>
<b>Specialization Areas and No. of courses</b>	<ul style="list-style-type: none"> <li>• 6 courses in the opted engineering minor</li> <li>• Engineering minor courses to start from 5<sup>th</sup> term</li> <li>• Student can choose anyone Engineering minor areas as mentioned below:                             <ul style="list-style-type: none"> <li>• Full Stack Web Development</li> <li>• Cyber Security</li> <li>• Data Science</li> <li>• Machine Learning</li> <li>• Internet of Things</li> <li>• UI/ UX Design</li> <li>• Android Application Development</li> <li>• Game Design</li> <li>• DevOps</li> <li>• Robotic Process Automation</li> <li>• Software Methodologies and Testing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>12-16 courses</b> in the opted specialization</li> <li>• Specialization courses to <b>start from 1<sup>st</sup>/2<sup>nd</sup> term.</b></li> <li>• All <b>Specializations offered in tie-up with Industry only</b> as mentioned below:                             <ul style="list-style-type: none"> <li>- Data Science and Data Engineering</li> <li>- Cyber Security and Blockchain</li> <li>- Full Stack Software Development</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>More input in term of no. of courses to provide breadth and depth in the chosen area.</b></li> <li>• <b>Early start of specialization courses to give focused inputs</b></li> <li>• <b>Specializations offered in tie-up with Industry only providing direct input from the experts who are working on the industry solutions.</b></li> </ul>
<b>Professional / Industry Certifications</b>	Certifications are <b>not integral part of the curriculum</b> . Student can obtain the same in additional to the curriculum and will have to bear the cost.	Professional/ Industry <b>certifications are integral part of the curriculum</b> in each specialization. <ul style="list-style-type: none"> <li>• Indicative list of certifications (any 2) for Data Science and Data Engineering:                             <ul style="list-style-type: none"> <li>- Tableau Desktop Certified Associate</li> <li>- IBM Data Science Professional Certificate</li> <li>- Google Professional Data Engineer Certification</li> <li>- Cloudera Certified Associate (CCA) Data Analyst</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Industry will certify the skills gained throughout the degree duration.</b></li> <li>• <b>Better placement opportunities</b></li> </ul>

		<ul style="list-style-type: none"> <li>- Associate Certified Analytics Professional (aCAP)</li> <li>● Indicative list of certifications (3-5) for Cyber Security and Blockchain: <ul style="list-style-type: none"> <li>- CompTIA Linux+</li> <li>- CompTIA Network+</li> <li>- CompTIA Cloud +</li> <li>- CompTIA Security+</li> <li>- CompTIA Pentest+</li> <li>- CompTIA CySA+</li> </ul> </li> <li>● Indicative list of certifications for Full Stack Software Development: <ul style="list-style-type: none"> <li>- Foundation Certificate in CCDSAP (CodeChef Certified Data Structure &amp; Algorithms Programme)</li> <li>- Advanced Certificate in CCDSAP (CodeChef Certified Data Structure &amp; Algorithms Programme)</li> </ul> </li> </ul>	
<p><b>Innovative Courses</b>  - as per Industry requirements  - Technology/  Software oriented courses</p>	<p>Students are exposed to innovations in different courses, some of them may be offered as electives.</p>	<p><b>More Innovative courses are integral part of curriculum</b> as per industry requirements, indicative list of courses to be offered in different specialization areas are given below:</p> <ul style="list-style-type: none"> <li>● Design Thinking</li> <li>● Descriptive and Predictive Analytics</li> <li>● Web and Social Media Analytics</li> <li>● Digital Forensics</li> <li>● Malware Analysis</li> <li>● Blockchain</li> <li>● Competitive Programming</li> <li>● Full Stack (Spring, Hibernate, Struts)</li> <li>● Foreign Language</li> </ul>	<p><b>More industry aligned innovative courses to equip students with updated inputs.</b></p>

<b>Seed Money</b>	<p>After thorough review of the proposal, some selected students may be given a fixed amount (some %age of the total project cost) as seed money to start an entrepreneurial venture.</p>	<ul style="list-style-type: none"> <li>● <b>Rs. 20,000/-</b> per student for Designing a Programme/ Software/ Mobile App.</li> <li>● <b>Rs. 2 lakhs to Rs. 5 lakhs</b> per project for StartUp/ Entrepreneurial Venture.</li> <li>● <b>Rs. 10000/-</b> Seed Grant for Innovation/ Research activities.</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Minimum Seed money of Rs. 30,000</b> to every student to enable them to experiment, innovate and do research.</li> <li>● <b>Additional seed money</b> to selected students to support entrepreneurial skills of the students and enable them to run a business alongwith their B.Tech Hons.</li> </ul>
<b>Courses by Foreign Faculty/ Industry experts (Blended Mode)</b>	<p>Complete course is not taught by Industry experts or foreign faculty, however industry interaction is planned through guest lectures in various courses.</p>	<p><b>Around 40% courses</b> to be taught in online/blended mode by <b>Industry experts / Foreign faculty.</b></p> <ul style="list-style-type: none"> <li>● 12-16 by Industry experts</li> <li>● 3-5 by Foreign faculty</li> </ul>	<p>Teaching by Industry experts and foreign faculty will bring varied experiences, deliberations on real life industry problems and global perspective in teaching</p>
<b>Competitions/ Bootcamps/ Datathons/ Hackathons/ Codefests</b>	<p>Students will be given opportunity to participate in various competitions like Datathons, Hackathons, Codefests etc.</p>	<ul style="list-style-type: none"> <li>● Well Structured and short term, <b>intense training sessions</b> designed to prepare students through Bootcamps.</li> <li>● Will help in acquiring skills needed for <b>placements in top companies</b> and rapidly growing start-ups.</li> <li>● Students will be <b>required to participate in various national and international competitions</b> like: <ul style="list-style-type: none"> <li>- Datathons</li> <li>- Hackathons</li> <li>- Codefests</li> </ul> </li> <li>● Bootcamps and performance in competitions may result in curriculum credits.</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Every student will get opportunity to participate in Bootcamps/ Datathons/ Hackathons/ Codefests</b></li> <li>● <b>Will enhance analytical and competitive skills of the students along with earning credits.</b></li> </ul>
<b>International exchange</b>	<p>Option to go to partner universities in different countries on exchange programmes for a term or other duration as available/offered from time to time. Cost of travel, stay, fee or any other charges (if any) will have to be borne by the students.</p>	<p><b>Preference to go to partner universities</b> in different countries on exchange programmes for a term or other duration as available/offered from time to time. Cost of travel, stay, fee or any other charges (if any) will have to be borne by the students.</p>	

<b>INDUSTRY - Live Projects</b>	1 or more live projects may be offered to students	<b>03-04 guided projects</b> with Industry (On-campus or Off-campus)	<b>More guided projects to give hand-on exposure to the students on Industry problems</b>
<b>INDUSTRY - Mentors</b>	Faculty mentors will be appointed for the students	<b>Industry mentor</b> may be provided to each student for professional guidance in addition to faculty mentors.	<b>The program offers students an opportunity to learn about the way Industry operates under the guidance of professionals.</b>
<b>INDUSTRY Attachment / Internship</b>	Internship/ attachment opportunities: - 4 to 6 weeks after 2 <sup>nd</sup> Year - Optional internship of 4-6 months	<b>Multiple Internship/ Industry attachments as a compulsory part of curriculum:</b> - <b>4 to 6 weeks after 2<sup>nd</sup> Year</b> - <b>4 to 6 months internship in 4<sup>th</sup> year (preferable last term)</b>  Cost to be borne by the student (travel, stay, food etc.), in some cases students may get stipend from the industry.	
<b>Induction Programme</b>	2-3 days induction programme on university systems, rules, regulations, experiential and fun Activities.	<b>1 week induction programme</b> on Experiential Learning Activities, Industry Interaction, Team Building Activities and pre-term on conceptual clarity and road map ahead	<b>Elaborate induction programme to enable students</b>