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

Highlight/Parameter	B.Tech	B.Tech (Hons.)	Perceived Benefit (Hons.)
Eligibility and Admission Criteria	Eligibility: 60% with LPUNEST	Eligibility: 70% with LPUNEST (higher cut-off in LPUNEST compared to B.Tech)	Being among the high achievers, you will be able to take advantage of the peer-to-peer learning and
Specialization Areas and No. of courses	<ul> <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> <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> <li>12-16 courses in the opted specialization</li> <li>Specialization courses to start from 1<sup>st</sup>/2<sup>nd</sup> term.</li> <li>All Specializations offered in tie-up with Industry only as mentioned below:         <ul> <li>Data Science and Data Engineering</li> <li>Cyber Security and Blockchain</li> <li>Full Stack Software Development</li> </ul> </li> </ul>	<ul> <li>More input in term of no. of courses to provide breadth and depth in the chosen area.</li> <li>Early start of specialization courses to give focused inputs</li> <li>Specializations offered in tie-up with Industry only providing direct input from the experts who are working on the industry solutions.</li> </ul>
Professional / Industry Certifications	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 certifications are integral part of the curriculum in each specialization.  Indicative list of certifications (any 2) for Data Science and Data Engineering: Tableau Desktop Certified Associate IBM Data Science Professional Certificate Google Professional Data Engineer Certification Cloudera Certified Associate (CCA) Data Analyst	<ul> <li>Industry will certify the skills gained throughout the degree duration.</li> <li>Better placement opportunities</li> </ul>

		<ul> <li>Associate Certified Analytics         Professional (aCAP)</li> <li>Indicative list of certifications (3-5) for Cyber Security and Blockchain:         - CompTIA Linux+         - CompTIA Network+         - CompTIA Cloud +         - CompTIA Security+         - CompTIA Pentest+         - CompTIA CySA+</li> <li>Indicative list of certifications for Full Stack Software Development:         - Foundation Certificate in CCDSAP         (CodeChef Certified Data Structure &amp; Algorithms Programme)         - Advanced Certificate in CCDSAP         (CodeChef Certified Data Structure &amp;</li> </ul>	
Innovative Courses - as per Industry requirements - Technology/ Software oriented courses	Students are exposed to innovations in different courses, some of them may be offered as electives.	Algorithms Programme)  More Innovative courses are integral part of curriculum as per industry requirements, indicative list of courses to be offered in different specialization areas are given below:  Design Thinking Descriptive and Predictive Analytics Web and Social Media Analytics Digital Forensics Malware Analysis Blockchain Competitive Programming Full Stack (Spring, Hibernate, Struts) Foreign Language	More industry aligned innovative courses to equip students with updated inputs.

Seed Money	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.	<ul> <li>Rs. 20,000/- per student for Designing a Programme/ Software/ Mobile App.</li> <li>Rs. 2 lakhs to Rs. 5 lakhs per project for StartUp/ Entrepreneurial Venture.</li> <li>Rs. 10000/- Seed Grant for Innovation/ Research activities.</li> </ul>	<ul> <li>Minimum Seed money of Rs. 30,000 to every student to enable them to experiment, innovate and do research.</li> <li>Additional seed money to selected students to support entrepreneurial skills of the students and enable them to run a business along with their B.Tech Hons.</li> </ul>
Courses by Industry experts (Blended Mode)	Complete course is not taught by Industry experts, however industry interaction is planned through guest lectures in various courses.	Around 40% courses to be taught in online/blended mode by Industry experts  ■ 12-16 by Industry experts	Teaching by Industry experts will bring varied experiences, deliberations on real life industry problems in teaching.
Competitions/ Bootcamps/ Datathons/ Hackathons/ Codefests	Students will be given opportunity to participate in various competitions like Datathons, Hackathons, Codefests etc.	<ul> <li>Well Structured and short term, intense training sessions designed to prepare students through Bootcamps.</li> <li>Will help in acquiring skills needed for placements in top companies and rapidly growing start-ups.</li> <li>Students will be required to participate in various national and international competitions like:         <ul> <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> <li>Every student will get opportunity to participate in Bootcamps/ Datathons/ Hackathons/ Codefests</li> <li>Will enhance analytical and competitive skills of the students along with earning credits.</li> </ul>
International exchange	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.	Preference 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.	

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