

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT



Date: 06/10/2021

Minutes of the 51st meeting of the Senate

The aforesaid meeting of the SVNIT Senate was held on September 07, 2021, 03:00 p.m. onwards in the Conference room of Department of Electronics Engineering, SVNIT Surat. The following members were present in the meeting.

(1) Dr. S. B. Gandhi Professor & Director SVNIT, Surat	: Chairman
(1) Dr. S. K. Galdin, Holesson & Denotor, Stratty Surat	: Member
(2) Dr. Chabroly Pulla Rao, Professor, CD, IIT Tirupati	: External Member
(4) Dr. Cheorona Funar A dil Professor SIMSM IIT Bombay	: External Member
(4) Dr. Gajendra Kumai Adn, Professor, EED IIT Delbi	: External Member
(5) Dr. G. N. Sharma Brof & Dean (Academic) SVNIT. Surat	: Member
(6) Dr. S. N. Sharma, Flor. & Dean (Academic) Strict, Sund	: Member
(7) Dr. K. Venkala Rao, FIOI. & Dean (R&C) SVNIT Surat	: Member
(8) Dr. D. C. Jinwala, Floi. & Dean (R&C), 5 VIVI, Surat	: Member
(9) Dr. V. L. Manekai, Floi. & Dean (1 & D), 5 VIII, Surat	: Member
(10) Dr. G. J. Josm, Prol. & Head, CED, SVNIT, Sunat	: Member
(11) Dr. M. A. Zaven, Floi. & Head, COED, SVNIT, Suite	: Member
(12) Dr. R. Chudamani, Flor. & Fload, EED, SVIII, Sunat	: Member
(13) Dr. Jyournay Banerjee, 1101. & Floud, Hille, 5 (144, 5 and 1	: Member
(14) Dr. J. N. Palel, Floresson, CED, SVNIT, Sunat	: Member
(15) Dr. C. D. Modifiera, Professor, CED, SVNIT, Surat	: Member
(16) Dr. A. K. Desai, Floresson, CED, SVNIT, Sutat	: Member
(17) Dr. C. H. Solaliki, Professor, CED, 57747, Surat	: Member
(18) Dr. S. A. Vasanwala, Floresson, CED, SVNIT, Surat	: Member
(19) Dr. S. M. Yadav, Floresson, CED & BoG Member, SVNIT, Surat	: Member
(21) Dr. R. A. Christian, Professor, CED & Doe Homedy 2 way y	: Member
(21) Dr. P. G. Aginnouri, Professor, CED, SVNIT, Surat	: Member
(22) Dr. M. Mansoor Analimica, Professor, CED, SUNIT, Surat	: Member
(23) Dr. Kakesh Kulhar, Floressor, CED, SVNIT, Surat	: Member
(24) Dr. K. A. Chaunan, Professor, CED, SVNIT, Sum	: Member
(25) Dr. Z. V. P. Muruly, Floressor, ChED, SVNIT, Surat	: Member
(26) Dr. P. A. Parikii, Professor, ChED, 5 (141, 5 and 5	: Member
(27) Dr. M. Chakraborty, Professor, ChED, 5 VIII, Surat	: Member
(28) Dr. M. Mukhopaulyay, Processor, ChED, SVNIT, Surat	: Member
(29) Dr. J. K. Parikii, Professor, CIED, SVNIT, Surat	: Member
(30) Dr. U. D. Dalai, Professor, ECED, SVNIT, Surat	: Member
(31) Dr. J. N. Sarvalya, Floresson, LCLD, SVNIT, Surat	: Member
(32) Dr. Anandita Chowdial y, 1 1005501, EED, 5 (1117, 5 and 1	: Member
(33) Dr. A. K. Panchal, Floressor, EED, SVNIT Surat	: Member
(34) Dr. V. A. Snan, Floresson, BED, SVNIT, Sutar	: Member
(35) Dr. H. K. Ravai, Floresson, MED, SVNIT, Surat	: Member
(36) Dr. K. P. Desai, Floresson, MED, SVNIT, Surat	: Member
(37) Dr. A. A. Shakh, Professor, MED, SVNIT, Surat	: Member
(30) Dr. 5 Hallehula Kullar, 11005501, HLZ, 5 HALF, 5 H	: Member
(39) Dr. 1. N. Desai, 1 10105501, 1420, 0 14 14, 2 and	: Member
(40) Dr. A. K. Shukia, Holosson, AMHD, SVNIT, Surat	: Member
(41) Dr. V. H. Flauhan, Professor, AMHD, SVNIT, Surat	: Member
(42) DI. NUCIU AUIANIIA, 110100001, 1101010, $21200000000000000000000000000000000000$	

Minutes of 51st meeting of the Senate held on September 07, 2021

Page **1** of **11**

IOINON

: Member (43) Dr. Smita Jauhari, Professor, DoC, SVNIT, Surat : Invitee (44) Dr. P. V. Timbadia, Dean (A&RG), SVNIT, Surat : Invitee (45) Dr. Ravi Kant, Dean (Students' Welfare), SVNIT, Surat : Invitee (46) Dr. C. M. Patel, Asso. Prof. & Head, ChED, SVNIT, Surat : Invitee (47) Dr. P. N. Patel, Asso. Prof. & Head, ECED, SVNIT, Surat : Invitee (48) Dr. J. M. Dhodiya, Asso. Prof. & Head, AMHD, SVNIT, Surat : Invitee (49) Dr. Suresh Kumar, Asso. Prof. Head, DoC, SVNIT, Surat : Invitee (50) Dr. D. V. Shah, Asso. Prof. & Head, DoP, SVNIT, Surat (51) Dr. H. R. Jariwala, Asso. Prof. & Asso. Dean (Academic) SVNIT, Surat : Invitee (52) Dr. R. D. Shah, Asso. Prof. & Asso. Dean (Academic) SVNIT, Surat : Invitee : Invitee (53) Dr. Vipul Kheraj, Asso. Prof. & Asso. Dean (FW) SVNIT, Surat : Invitee (54) Dr. Y. D. Patil, Asso. Prof. & Asso. Dean (P&D), SVNIT, Surat (55) Dr. S. S. Arkatkar, Asso. Prof. & Asso. Dean (P&D), SVNIT, Surat : Invitee (56) Dr. K. D. Yadav, Asso. Prof. & Asso. Dean (R&C) SVNIT, Surat : Invitee (57) Dr. H. B. Mehta, Asso. Prof. & Asso. Dean (R&C), SVNIT, Surat : Invitee : Invitee (58) Dr. S. R. Patel, Asso. Prof. & Asso. Dean (SW) SVNIT, Surat (59) Dr. P. V. Bhale, Asso. Prof. MED & BoG Member SVNIT, Surat : Invitee : Invitee (60) Shri Amit C. Patel, I/c. Dy. Registrar (Academic), SVNIT, Surat (61) Shri M. K. Manglam, Asst. Registrar (Academic), SVNIT, Surat : Invitee (62) Mr. Shah Heemin Ketankumar, Students General Secretary, SVNIT, Surat : Invitee (63) Ms. Bhavna Dilip Matwani, Academic Affairs Secretary, SVNIT, Surat : Invitee (64) Ms. Yamini Kabra, Research Innovation Affairs Secretary, SVNIT, Surat : Invitee : Secretary (65) Dr. Pramod Mathur, Registrar, SVNIT, Surat

The leave of absence of the following members were noted.

(1) Dr. D. P. Vakharia, Professor, Mechanical Engineering Department, SVNIT, Surat

(2) Dr. K. N. Pathak, Professor, Department of Physics, SVNIT, Surat

(3) Dr. H. B. Mehta, Asso. Prof. & Asso. Dean (R&C) SVNIT, Surat.

Introduction by the Chairman

At the outset, the Chairman Senate warmly welcomed all the Members of the 51st meeting of the Senate. He especially welcomed the external members, Prof. G. Bhuvanshwari, Department of Electrical Engineering (IIT Delhi), Prof. Gajendra Kumar Adil of S. J. Mehta School of Management (IIT Bombay) and Prof. C. P. Rao, Department of Chemistry (IIT Tirupati). He also briefed the members that Prof. Pranab Mahapatra has completed his term as a Senate Member. He appreciated the role of Professor Mahapatra and the support as well as guidance provided by him. He also welcomed Ms. Bhavna Dilip Matwani (Secretary, Academic Affairs), Mr. Heemin Shah (General Secretary), and Ms. Yamini Kabra (Research and Innovation Secretary), i.e. the newly elected Student representatives to the Senate. The Chairman briefed the Members about special achievements of the Faculty members that had been communicated by the Chairman through Email at the allstaff. That are detailed below.

- 1. Prof. C. H. Solanki (Civil Engineering) has been selected in a special committee of Government of Gujarat to review the requirements of "Tall Buildings".
- Dr. U. P. Rao (Computer Science and Engineering) elevated to Senior Grade of IEEE membership for his significant contribution to the profession.
- Dr. Srinivas Arkatkar (Civil Engineering) has been selected as a TUM Global Visiting Professor for the Year 2021 at the Technical University of Munich, Germany.
- 4. Dr. H. K. Dave has edited the book titled "Fused Modelling based 3-D Printing" published by Springer.
- Dr. Srinivas Arkatkar (Civil Engineering) has been appointed as an Academic Editor in the Editorial Board of the *Journal of Advanced Transportation*.

Minutes of 51st meeting of the Senate held on September 07, 2021

Page **2** of **11**

Mamer Janon

The Chairman requested the Student member representatives to present their views and thereafter they were excused from the remaining proceedings of the Senate. The representatives proposed the introduction of the extra credit arrangement within the existing curriculum framework, financial supports for the projects and Conference attendance, exchange programs with Foreign Universities and academic rehabilitation. Notably, the following were suggested.

- (i) regarding the extra credit, the revised curricula of the B Tech and integrated MSc programmes are in effect since the Academic Year 2019-20. Interestingly, the revised curricula have the arrangement of B Tech in (....) with minor in (....) and B Tech (Honours) programmes with the requirement of earning extra credits in addition to the requisite standard credit requirement range. An example for the illustration of 'B Tech in (...) with minor in (....)' is 'B Tech in Chemical Engineering with minor is Computer Science and Engineering'.
- (ii) In addition to available possible supports of the Institute, the students are encouraged to avail the Early Career Research schemes of the National Scientific Sponsoring Organizations, e.g. DST, CSIR, National Academy of Sciences and National Academy of Engineers. Those are aimed to provide the meaningful support for professional activities and career development of the young generation.
- (iii) About exchange programmes, the Institute would adopt steps for signing MoUs between the Academic Departments of the SVNIT and corresponding Academic Departments of IIT Bombay. Besides this, it was agreed to arrive at agreements with the Foreign Universities by designing a defined mechanism to impart the globally competitive education to young generations. Regarding the weak Student case, it was suggested to make the parents of the student informed of the Academic Performance in a defined manner.

After listening to them and suggesting the above-mentioned mechanisms, the student members were excused from the remaining proceedings and the Dean (Academic) was requested to proceed with agenda items.

Item 1	To confirm the minutes of the 50th meeting of the Senate held on 19th May, 2021.
	Annexure I
Res. 1	Confirmed.
Item 2	To note and approve the actions taken on the resolutions adopted in the 50th meeting of the Senate held on 19th May, 2021 in the online mode. Annexure II
Res. 2	The 'Actions Taken Report (ATR)' was presented by the Dean (Academic). The House noted and approved the actions taken on the minutes of 50 th meeting of the Senate.
Item 3	To ratify resolutions adopted in the 11th meeting of the Standing Executive Committee of the Senate held on 15th June, 2021. Links: https://www.svnit.ac.in/Data/minutes/sec/11th%20SEC%20Minutes.pdf https://www.svnit.ac.in/Data/minutes/iaac/49th%20IAAC%20Minutes.pdf That are as follows: (1)To consider the ICCR Brochure (with the effect from the Academic year 2021-22)

Items and resolutions

Minutes of 51st meeting of the Senate held on September 07, 2021

Page **3** of **11**

manun

	The Brochure discusses the criteria and conditions for the admission of the ICCR scholars as well as academic regulations for the afore-said programs of the Institute.
	It was resolved and agreed to adopt the ICCR Brochure. Notably, the Institute has received impressive number of applications of the ICCR Scholars for the M Tech and PhD programmes of the Institute. <i>Annexure III</i>
	(2) About 'the upper limit' on the number of PhD Theses (FIR category) supervised by Assistant Professors recruited after July 2019 onwards.
	Concerning the above, it was agreed to assign the two FIRs (the upper limit) at every point for the non-sharing mode. Notably, the proportionate division calculation would be applied for the supervision shared by multiple Supervisors. The greater discussions can be found in the following two references as well.
	Reference: (i) resolution 2 of the 11th meeting of the Standing Executive Committee (ii) resolution 3 of the 49 th IAAC meeting.
	(3) Regarding a reapplication of the Senate resolution (48.10) for the PhD students opted for the NPTEL courses.
	It was discussed in the detail and agreed to reapply the Senate resolution (48.10) for the case, i.e. the NPTEL issuing pass grades based on the assignment part of the NPTEL courses to the Research Scholars of the first-year PhD programme of the Institute for the Spring semester part of the Academic Year 2020-21. (Resolution 11.3, the 11th meeting of the SEC of the Senate held on June 15, 2021).
	
Res 3	Ratified.
Kes. 3 Item 4	Ratified. To consider and adopt resolutions about the 'recommendations' made in the 51st meeting of the Institute Academic Advisory Committee (IAAC) held on 12th July, 2021. Link: https://www.svnit.ac.in/Data/minutes/iaac/51st%20IAAC%20Minutes.pdf The recommendations are as follows.
Res. 3 Item 4	 Ratified. To consider and adopt resolutions about the 'recommendations' made in the 51st meeting of the Institute Academic Advisory Committee (IAAC) held on 12th July, 2021. Link: https://www.svnit.ac.in/Data/minutes/iaac/51st%20IAAC%20Minutes.pdf The recommendations are as follows. (1) The PhD category conversion, the FSF to the PEC, of Research Scholar Pankaj J. Gandhi (D18CE008) under the supervision of Professor P. G. Agnihotri.
<u>Res. 3</u> Item 4	 Ratified. To consider and adopt resolutions about the 'recommendations' made in the 51st meeting of the Institute Academic Advisory Committee (IAAC) held on 12th July, 2021. Link: https://www.svnit.ac.in/Data/minutes/iaac/51st%20IAAC%20Minutes.pdf The recommendations are as follows. (1) The PhD category conversion, the FSF to the PEC, of Research Scholar Pankaj J. Gandhi (D18CE008) under the supervision of Professor P. G. Agnihotri. (2) An addition of a Supervisor, i.e. Dr. Jogender Singh (Department of Chemical Engineering), for the PhD supervision of Chappidi Srinivas (D20CE023) currently being supervised by Dr. Ankesh Kumar (Department of Civil Engineering Department).
<u>Res. 3</u> Item 4	 Ratified. To consider and adopt resolutions about the 'recommendations' made in the 51st meeting of the Institute Academic Advisory Committee (IAAC) held on 12th July, 2021. Link: https://www.svnit.ac.in/Data/minutes/iaac/51st%20IAAC%20Minutes.pdf The recommendations are as follows. (1) The PhD category conversion, the FSF to the PEC, of Research Scholar Pankaj J. Gandhi (D18CE008) under the supervision of Professor P. G. Agnihotri. (2) An addition of a Supervisor, i.e. Dr. Jogender Singh (Department of Chemical Engineering), for the PhD supervision of Chappidi Srinivas (D20CE023) currently being supervised by Dr. Ankesh Kumar (Department of Civil Engineering Department). The IAAC suggested the DAAC of the 'Department of Civil Engineering' to submit a justification of the joint supervision arrangement citing a connection between the research directions of the proposed Supervisors 1 and 2 in the context of the joint PhD supervision. The justification is required for the procedural part.
<u>Res. 3</u> Item 4	 Ratified. To consider and adopt resolutions about the 'recommendations' made in the 51st meeting of the Institute Academic Advisory Committee (IAAC) held on 12th July, 2021. Link: https://www.svnit.ac.in/Data/minutes/iaac/51st%20IAAC%20Minutes.pdf The recommendations are as follows. (1) The PhD category conversion, the FSF to the PEC, of Research Scholar Pankaj J. Gandhi (D18CE008) under the supervision of Professor P. G. Agnihotri. (2) An addition of a Supervisor, i.e. Dr. Jogender Singh (Department of Chemical Engineering), for the PhD supervision of Chappidi Srinivas (D20CE023) currently being supervised by Dr. Ankesh Kumar (Department of Civil Engineering Department). The IAAC suggested the DAAC of the 'Department of Civil Engineering' to submit a justification of the joint supervision arrangement citing a connection between the research directions of the proposed Supervisors 1 and 2 in the context of the joint PhD supervision of Niramal S. Mehta (D20CE029) currently being supervised by Dr. Kashyap A. Patel (Department of Civil Engineering) for the PhD supervision of Niramal S. Mehta (D20CE029) currently being supervised by Dr. Kashyap A. Patel (Department of Civil Engineering)

Page **4** of **11**

maumler 203

(5) Regarding the revised teaching schemes and the syllabi of the seven M Tech programmes of the Department of Civil Engineering. The following were resolved. (i) To align the specific schemes and the syllabi of the above-mentioned M.Tech. Programmes agreeing with 'the generalized scheme of the M.Tech. programme'. (ii) To incorporate the suggestions of the workshop Experts as well. (Resolution 1, part I, the 51st meeting of the IAAC) (6) A rearrangement in the supervision of two PhD students (FIR category), 'Laxman Rathod (DS20CE017) and Yatirnjulu (D20CE014)'. Under the new arrangement, Dr. P.V. Timbadia would be the Supervisor with the supervision strength 0.5, where Dr. Bandita Barman would be the Co-supervisor. It was termed as the 'special case' considering the fact, i.e. 'Dr. Burman resigned from the SVNIT and the DAAC recommendation was submitted well in advance'. (Resolution 1, part (d), the 51st meeting of the IAAC) (7) The category conversion, from the FIR to the FSF, of Research Scholar Praveen Barapatre (DS16CE008) working under the supervision of Professor J N Patel. In this regard, 'justifications in terms of the enhanced research productivity of the Candidate after the conversion from the FIR to the FSF' need submission, which is a requirement for the recommendation part. (Resolution 1, part I, the 51st meeting of the IAAC) (8) The category conversion from the FIR to PIS of Dilay Parmar (DS17CO001), working under the Supervision of Dr. U. P. Rao. (Resolution 2, 51st meeting of the IAAC). (9) About the July month Comprehensive examination of the year 2021, the minimum sixteen-credit requirement and the regular NPTEL examination postponement. The NPTEL minimum pass grade certificates were given considerations for the credit calculation related to the PhD course work requirement. This was recommended for the ratification of the Senate. (Resolution 3(1), the 51st meeting of the IAAC) (10) Regarding the inclusion of SWAYAM course. It was resolved that the DAAC (Department of Mathematics and Humanities) would review the proposal. The DAAC would prepare baskets of Department electives and Institute electives under the broader areas of the subject Mathematics. Existing Faculty expertise available with the Department in the proposed electives as well as reframing the scheme merit to be accounted for in this regard. (Resolution 3(2), the 51st meeting of the IAAC) (11) Creation of the Post-Doctoral opportunities in all the three disciplines (Mathematics, English and Management). In the 50th meeting of the Senate and the 51st meeting of the IAAC, it was agreed to introduce the Post-Doctoral opportunities for the research augmentation of the Institute.https://www.svnit.ac.in/Data/minutes/senate/50th%20SENATE_MINUTES.pdf____It was decided in the 51st meeting of the IAAC that a Committee would ascertain the methods of hiring the Post-Doctoral Fellows (PDFs), allocations of vacancies within the Academic Departments of the Institute, assigning the Mentors, expectations from the Fellows, duration of their association with the Institute and their fellowships etc. The above creation is not restricted to the Department of Mathematics and Humanities, extended to other Academic Departments as well. The Committee report would be submitted to the consideration of the Senate. (Resolution 3 (3), the 51st meeting of the IAAC)

Minutes of 51st meeting of the Senate held on September 07, 2021

Page 5 of 11

namer

- (12) The category conversion from the FSF to the PEC, i.e. Parekh Krupali S. (D17EN001), working under the Supervision of Dr. Urvashi Kaushal. The PEC category conditions hold applicable after the conversion. (Resolution 3 (4), the 51st meeting of the IAAC)
- (13) The category conversion from the PPF to the FSF, Jyotsnamayee (DS17CY003) working under the supervision of Dr. Rajendar Kumar (Supervisor) and Dr. S. K. Sahoo (Co-supervisor). It was recommended, but the reversal in the supervisory role, i.e. Dr. S K Sahoo (Supervisor) and Dr. Rajendar Kumar (Co-Supervisor). (Resolution 4 (1), the 51st meeting of the IAAC).
- (14) A two-degree certificate arrangement, the first is graduation (BSc) and the second is post-graduation (MSc) after the sixth semester and tenth semester respectively, within the study of five-year integrated MSc programmes of the Institute. The IAAC suggested the requirement of aligning the schemes and syllabi of the first six Semesters of the integrated programme in agreement with 'the standard BSc programmes offered by the Universities and Colleges' and 'guidelines of the UGC' in this regard. The similar re-alignment of the integrated five-year MSc from the seventh semester onward is requisite as well. (Resolution 4 (2), the 51st meeting of the IAAC)
- (15) Resolution 21 of the 34th meeting of the IAAC for the M Tech Interns. That stands applicable regarding the capping on M Tech interns strength. In this case, a comprehensive, forward-looking MoU discussing well-defined scientific collaborations would be signed between the SVNIT and the Industry. 'Industry Mentors' with the B. Tech. qualification for the M. Tech. interns are allowed, under exceptional cases subject to the careful review of CVs of the concerning Mentors. For this specific case, proven research credentials, e.g. in terms of publications, inventions and scientific reports authoring, of the Industry Mentors are the requisite. Recommended for the ratification of the Senate. (Resolution 5, the 51st meeting of the IAAC).
- (16) A two-year M.Sc (Physics) programme and a four-year B.Tech. programme in Engineering Physics. The DAAC of the Department of Physics was suggested to revisit the proposal. Alternatively, it was encouraged to explore the possibility of potential M Tech programmes that would meet the societal expectations as well as fill the niche in the contemporary societal requirement. (Resolution 6, the 51st meeting of the IAAC).
- (17) It was suggested to study 'an option of additional credit /audit courses for PhD Scholars during the gamut of the Research Progress Seminars' of the Learner (Research Scholar). (Resolution 7 (1), the 51st meeting of the IAAC).
- (18) The *revised nomenclatures* of the two existing M Tech programmes, their revised schemes and syllabi and two new M Tech programmes within the framework of the Department of Electronics Engineering. It was recommended to adopt the *revised nomenclatures* of the two existing M Tech programmes of the Department of Electronics Engineering as stated in the IAAC resolution. It suggested the following:
- (i) The Department would conduct two different workshops with the different compositions of the Experts associated with *the revised specialization nomenclatures*,
 i.e. 'Communication Technologies & Networks' and 'Microelectronics and VLSI Design'.
- (ii) The resulting revised schemes and syllabi of the above-mentioned 'two M Tech programmes with the revised specialization nomenclatures' need 'agreement with the generalized scheme of the M. Tech. programmes' of the Institute and incorporating the suggestions of the workshop Experts.

Page 6 of 11

Inamler TKIINNON

	Regarding the two <i>new</i> proposed M. Tech. programmes in addition to 'the two <i>existing</i> M Tech programmes with their revised nomenclatures', the IAAC suggested the concerning DAAC the following. First, consideration of the revised schemes and syllabi of the above-mentioned two programmes with their revised specialization nomenclatures. Then, revisit to the two proposed new programmes, i.e. Signal Processing and Machine Learning, Integrated Circuits and Systems. Finally, the revisit needs the omission of overlapping parts between them ('Communication Technologies & Networks, Microelectronics and VLSI Design', 'Signal Processing and Machine Learning, Integrated Circuits and Systems') as well as the calculation of the following:
	Available concerning specialization expertise and available resources 'with the Department' and 'additions required' in the expertise and resources. That would be the subject of the future IAAC meeting discussions. (Resolution 7 (2), the 51st meeting of the IAAC)
	(19) In terms of section (12.2) of Academic Regulations, Ketki Chintankumar Pathak (D14EC007) submitted the thesis. (Resolution 7 (3), the 51st meeting of the IAAC)
	(20) The XX grade for the Autumn Semester teaching of the Academic Year 2021-22 would be applied. (Resolution 8, the 51st meeting of the IAAC).
	(21) The Printer and UPS from the list of computer peripherals are omitted. The omission is with regard to the reimbursement of contingency expenses of M.Tech. and Ph.D. students. (Resolution 9, the 51st meeting of the IAAC).
	(22) The non-payment of the Semester fee by three students was informed and noted. (Resolution 10, the 51st meeting of the IAAC).
	(23) A clarity about the Makeup test: The first-year students, who appeared in the Mid semester examination, but aspire to reappear in the Makeup test, can score maximum 12 marks with the attempt of the question paper with the maximum marks 30. In addition to the above, the Makeup test detail can be found in the 'Academic Regulations 2013-14' (page 4, subsection 7.2 of section 7). (Resolution 11, the 51st meeting of the IAAC)
	(24) A resolution about 'the Autumn Semester teaching mode and related parts' of the Academic Programmes of the Institute from the pandemic viewpoint'. For the Academic Year 2021-22, an adequacy of 'a reapplication of the resolution 9 (serial number 13) of the 48 th meeting of the Senate was discussed. It was agreed to reapply. Thus, the mode of teaching for the above-mentioned semester teaching is online until further notifications. It was further agreed that the word 'proposed' of the afore-said resolution 9 needs replacement with the word 'resolved'. (Resolution 12, the 51st meeting of the IAAC)
	(25) About clarity in the written part of the PhD admission test of the Institute.
	 (i) The written test and interview of the PhD admission process would be the section-specific. The question paper of the written test would be the specialization-based. The specialization-based question paper links to specialized programmes-major research areas. This is irrespective of the mode of examination.
	(ii) The PhD admission has two components, i.e. the written and interview. For each component, fifty (50) is the maximum mark of the evaluation. The written test durations are two-hour and one-hour for the offline and online 'modes' respectively. For the both modes, questions would be the objective-type. The answer scripts of the written test and results (inclusive of the both components) would be submitted to the Academic Section records.
Minutes oj	f 51st meeting of the Senate held on September 07, 2021 Page 7 of 11
	manuel

	 (iii) The written test marks are for the screening purposes only (section 2.2.2 (a), associated paragraph 2 of the Academic Regulations of the Doctoral Programmes, July 2019 onwards). The 35-percentile criterion would be calculated by considering the number of candidates appeared in the section-specific question paper. A discussion about the percentile calculation is with the <i>Annexure IV</i>.
	(iv) The section-specific syllabus would be made available in combination with the list of eligible candidates displayed at the website for appearing in the admission process of the PhD program of the Institute. It was agreed for the section-specific growth within the framework of the Department.
	About 'the sectional arrangement discussion within the Department' can be found in the following.
	 Page number 7. of 27 of the Academic regulations for the Doctoral Programme, July 2019 onwards.
	• An example illustrating the meaning of the term 'Section' in the resolution 10 (5) of the 10th meeting of the Standing Executive Committee of the Senate.
	• Resolution 6(b), subitem 4 of the item 6 with <i>Annexure</i> III of the 50th meeting of the Senate. This resolution stands for the Spring Semester PhD admission (AY 2021-22) of the Institute onwards. (Resolution 13, the 51st meeting of the IAAC)
Res. 4	(a) Agreed with the recommendations mentioned in the sub items at serial orders (1)-(14).
	(b) The sub item (15) was approved. Further, it was resolved that the MoU 'signing', a comprehensive and forward-looking step, aims to foster the Industry-Academic scientific collaboration and beyond. It is a preferable requirement. Only under very genuine reasons substantiated with the specific 'signing' limitation, the MoU signing relaxation stands applicable.
	(c) Agreed with the recommendations mentioned in the sub items at serial orders (16)-(21).
	(d) The sub items at serial orders (22)-(23) were noted.
	(e) Approved the recommendations of the IAAC regarding the Autumn semester teaching and related parts of the Academic Year 2021-22 (sub item at serial order (24)).
:	(f) Approved the recommendation of the IAAC mentioned in the sub item at serial order (25).
Item 5	To ratify the Academic Calendar for the M Tech and PhD Programmes (new dmissions) of the Academic Year 2021-22. Annexure V
	A separate arrangement of the above-mentioned programmes is attributed to the pandemic reasons.
Res. 5	Approved. Two replacements in wordings were made, 'the resulting wordings in the <i>Annexure V</i> are PhD Ist year' and their Spring semester part.
Item 6	The PhD admission of the Autumn Semester (AY 2021-22), concerning parts and Academic Regulations.
	In the Autumn Semester, AY 2021-22, 149 (one forty-nine) Candidates were listed among the selected candidates. Besides this, 4 (four) Candidates were offered admissions in the FIS category (ICCR Scholars).

Page **8** of **11**

meline ~~)

Res. 6	The Dean (Academic) presented the statistics of the admissions offered in the Autumn
	Semester PhD admission process of the Academic Year 2021-22, including the receiver ind admissions.
	Resolutions about the PhD admission procedure and the Research Progress Seminar (RPS) parts are as follows.
	(i) For the successful implementation of the PhD admission abiding by the Academic regulations and the Senate regulations, the following procedural sequence was resolved. The sequence is occupancy-vacancy calculation (as per 'clause 2.1 and clause 10.5' of the academic regulations for doctoral programmes w.e.f July 2019, resolution 3 of the 49th IAAC meeting, resolution 2 of the 11th SEC meeting and 'resolution 3 and sub item 2 of item 3' of the 51st Senate meeting), notification and allocation. First the occupancy-vacancy calculation concerning the eligible PhD Supervisor for the intended semester PhD admission of the Academic Year in conformity with the Academic Regulations and the Senate Resolutions. The calculation chart, discussing 'the Supervisor name, the associated occupancy figure and the vacancy available figure', needs submission from the Academic Departments to the Academic Section for the onward procedure. Then, the Academic section would notify the date sheet of the PhD admission of the intended semester. Finally, the Supervisor allocation would be made for the PhD admission abiding by the Senate resolutions and Academic regulation via the Institute procedure.
	(ii) It was suggested that assigning 'Unsatisfactory' remark of the RPS evaluation sheet to the Scholar, which illustrates the performance of the Scholar for the specific duration, needs very clear justifications substantiating the unsatisfactory remark on the back side of the evaluation sheet. Please read this as first Unsatisfactory remark.
	 (iii) In terms of the above, i.e. (ii), the Supervisor(s) would inform formally the Scholar of the unsatisfactory remark in the specific seminar. The formal Supervisor(s)-Scholar correspondence would include the following. (i) clear discussions on the progresses made yet on the research problems pertaining to the thesis. (ii) Concerning regulations on single unsatisfactory remark, two unsatisfactory remarks and Scholarship parts (iii) the publication requirements for the award of the PhD. The formal Supervisor(s)-Scholar correspondence would be done with correspondence copies to the Dean (Academic) as well. Otherwise, the procedure adopted in the Research Progress Seminar amounts to the incomplete.
Item 7	To consider and adopt resolutions about 'the generalized scheme of the M. Tech
	 B.Tech. in () with Minor in (). (1) The 'generalized' scheme of the M Tech programmes of the Institute is with the Annexure VI of the agenda items. The scheme of the 'specific' M Tech specialization needs agreement with the proposed generalized scheme. (2) It is proposed to ratify the eligibility criteria for the B Tech (Honours) and the B Tech in
Res. 7	() with Minor in (). Annexure VII of the agenda items. The Annexure VII discussing two programmes, B Tech (honours) and B Tech in ()
	with minor in (), was approved.
	Regarding the Annexure VI discussing the generalized scheme of the M rech programmes of the Institute, the refinements in the Annexure VI were suggested. Those are as follows.

Page **9** of **11**

Foramer -----

	The Academic Departments would contemplate the components of the LTP combination, the right-hand side column entries of the generalized scheme, associated with the specific courses of the first and second semesters of the M Tech programme. The overall credit strength of the M Tech programme would obey the credit range 62-68.
	Furthermore, structural refinements in the combination of the Courses, listed at the left- hand side column of the scheme, can be made via omissions of overlapping parts between the contents of Courses, unfolding connections between them, distinctions between the core courses and the electives, including the consideration of pedagogical ideas etc. Subsequently, the presentations of the Academic Departments would be arranged in the Academic bodies of the Institute for their resolution. There was discussion about the separate code for practicals in the curriculum.
	Notably, the successful completion of 'every' component of the LTP combination of the Course amounts to the completeness of the Course opted by the Research Scholar for earning the minimum course credit requirement cited in the Academic regulation, otherwise incomplete.
Item 8	To embed the composition of the Comprehensive Assessment Evaluation Committee (stated in the Academic Regulations) into the standard template. (Page 7 of 27 of the Academic regulations for the Doctoral Programme, July 2019 onwards).
Res. 8	Approved 'the Annexure VIII (Comprehensive Assessment of Eligible PhD candidate)
Téam 0	attached'. Regarding the accreditation (NBA) of the B Tech and M Tech Academic
Item 9	Programmes of the Institute.
Res. 9	Noted. The Dean (Academic) informed the House of the accreditation status of the Undergraduate and Post Graduate programmes of the Institute. In this regard, a draft timeline of the submission of the prequalifiers and the SARs (subject to the approval of corresponding prequalifiers) would be proposed in the IAAC meeting by the Academic Section
Item 10	About the recall status of the Students of the Academic Programmes of the Institute. The PhD Scholars from the second-year onwards are recalled in the campus, including the M Tech second-year Students. Their associated timeline spans from July 1 to July 31, 2021 for the PhD students (second-year onwards) and August 1 to August 10, 2021 for the M Tech Students (second year) and MSc (fifth year). Other than these categories of the Students, that (recall) stands awaited. (Task Force Meeting minutes of the date, i.e. August 16, 2021).
Res. 10	Noted.
Item 11	About the CIDER (Centre for Inter-Disciplinary Education and Research).
Res.11	Professor D C Jinwala, Chairman, CIDER briefed the august House related to observations received from the Senate Members on the CIDER proposal presented by him during the 50 th meeting of the Senate (Resolution 3 of the 50 th meeting of the Senate). He also explained the compliance of observations received from the Senate Members in the revised proposal (Annexure IX). It was also informed that the concept proposal of the CIDER in the Institute is already approved by the BoG of the Institute in-principle. Greater details, e.g. 'detailed plan of activities and fund requirements be worked out' and further placing before the BoG, are with Resolution 58.15 of the 58 th meeting of the BoG held on June 29, 2021. The Dean (Academic) of the Institute expressed the suggestions of preparing the comprehensive brochures by the CIDER including the eligibility, admission procedure, regulations

Page **10** of **11**

Mether Followard

	to the initiality of partificates and
	governing the programme study, schemes and syllabi, admissibility of certificates and degrees of CIDER programmes etc. as may be applicable after getting approvals from the Institute Academic Advisory Committee (IAAC) and the Institute Senate. The suggestions were noted. The Senate recommended the CIDER proposal for the consideration of the Board. Greater details, e.g. detailed plan of activities and fund requirements be worked out for placing before the BoG, are given in resolution 58.15 of the 58 th meeting of the BoG held on June 29, 2021.
Items fron	n the Chair
Item 12	About the order of the Honorable High Court of Gujarat at Anneuabad pertaining to
	the Krishabh Kapoor(U19CE020) with respect to Letters Patent Appear 10 of 2021
	in Special Civil Application No. 5584 of 2021.
Res.12	The Dean (Academic) informed the members about the recent judgement of Hon ble High
	Court of Gujarat in the case of Mr Krishabh Kapoor (U19CE020). The members noted the
	status of the case and advised to take appropriate decision in the matter by the Chairman
	Senate
Item 13	About the Memorandum of Understanding (MoU) between Departments of the two
from 10	Institutions.
Res 13	To have a greater number of meaningful MoUs for the augmentation of outreach activities
103.15	of the Institute, in particular, it was agreed for giving impetus to 'initiatives and steps' for
	signing the MoUs for the early induction programme of the IIT Mumbai. In this regard,
	the Heads of the Departments of the SVNIT would take expeditious initiatives by
	giving time-bound considerations to hold discussions with their corresponding
	counterparts of the IIT Mumbai. After the circulation of Senate minutes, 'the outcomes
	of the Proceedings of the aforesaid meeting (a part of the Action Taken Report by the
	Department)' would be made available to the Academic Section for the consideration of the
	Senate of the SVNIT to adopt the MoU signing resolutions.

RĚ SECRETARY, SENATE

10/21

DIRECTOR CHAIRMAN, SENATE

Page 11 of 11

Annexure I



SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

No.: Dean(Acad.)/154/2020-21



Date: 14/06/2021

The minutes of the 50th meeting of the Senate

The aforesaid meeting was conducted on May 19, 2021, 03:00 pm onwards in the online mode.

The following members were present in the meeting:

(1) Dr. S. R. Gandhi, Professor & Director, SVNIT, Surat	: Chairman
(2) Dr. P. L. Patel, Professor & Deputy Director, SVNIT, Surat	: Member
(3) Dr. Pranab Kumar Mohapatra, Professor, CED, IIT Gandhinagar	: External Member
(4) Dr. Chebrolu Pulla Rao, Professor, CD, IIT Tirupati	: External Member
(5) Dr. Gajendra Kumar Adil, Professor, SJMSM, IIT Bombay	: External Member
(6) Dr. G. Bhuvaneshwari, Professor, EED, IIT Delhi	: External Member
(7) Dr. S. N. Sharma, Prof. & Dean (Academic) SVNIT, Surat	: Member
(8) Dr. R. Venkata Rao, Prof. & Dean (Faculty Welfare), SVNIT, Surat	: Member
(9) Dr. V. L. Manekar, Prof. & Dean (P&D), SVNIT, Surat	: Member
(10) Dr. D. C. Jinwala, Prof. & Dean (R&C), SVNIT, Surat	: Member
(11) Dr. M. Mansoor Ahmmed, Prof. & Head, CED, SVNIT, Surat	: Member
(12) Dr. M. A. Zaveri, Prof. & Head, CoED, SVNIT, Surat	: Member
(13) Dr. R. Chudamani, Prof. & Head, EED, SVNIT, Surat	: Member
(14) Dr. Jyotirmay Banerjee, Prof. & Head, MED, SVNIT, Surat	: Member
(15) Dr. J. N. Patel, Professor, CED, SVNIT, Surat	: Member
(16) Dr. C. D. Modhera, Professor, CED, SVNIT, Surat	: Member
(17) Dr. A. K. Desai, Professor, CED, SVNIT, Surat	: Member
(18) Dr. C. H. Solanki, Professor, CED, SVNIT, Surat	: Member
(19) Dr. S. A. Vasanwala, Professor, CED, SVNIT, Surat	: Member
(20) Dr. S. M. Yadav, Professor, CED, SVNIT, Surat	: Member
(21) Dr. G. J. Joshi, Professor, CED, SVNIT, Surat	: Member
(22) Dr. R. A. Christian, Professor, CED & BoG Member, SVNIT, Surat	: Member
(23) Dr. P. G. Agnihotri, Professor, CED, SVNIT, Surat	: Member
(24) Dr. Rakesh Kumar, Professor, CED, SVNIT, Surat	: Member
(25) Dr. K. A. Chauhan, Professor, CED, SVNIT, Surat	: Member
(26) Dr. Z. V. P. Murthy, Professor, ChED, SVNIT, Surat	: Member
(27) Dr. P. A. Parikh, Professor, ChED, SVNIT, Surat	: Member
(28) Dr. M. Chakraborty, Professor, ChED, SVNIT, Surat	: Member
(29) Dr. M. Mukhopadhyay, Professor, ChED, SVNIT, Surat	: Member
(30) Dr. J. K. Parikh, Professor, ChED, SVNIT, Surat	: Member
(31) Dr. U. D. Dalal, Professor, ECED, SVNIT, Surat	: Member
(32) Dr. J. N. Sarvaiya, Professor, ECED, SVNIT, Surat	: Member
(33) Dr. Anandita Chowdhury, Professor, EED, SVNIT, Surat	: Member
(34) Dr. A. K. Panchal, Professor, EED, SVNIT, Surat	: Member
(35) Dr. V. A. Shah, Professor, EED, SVNIT, Surat	: Member
(36) Dr. H. K. Raval, Professor, MED, SVNIT, Surat	: Member

Minutes of 50th meeting of the Senate held on May 19, 2021

Page **1** of **15**

(37) Dr. K. P. Desai, Professor, MED, SVNIT, Surat	: Member
(38) Dr. A. A. Shaikh, Professor, MED, SVNIT, Surat	: Member
(39) Dr. Shailendra Kumar, Professor, MED, SVNIT, Surat	: Member
(40) Dr. T. N. Desai, Professor, MED, SVNIT, Surat	: Member
(41) Dr. A. K. Shukla, Professor, AMHD, SVNIT, Surat	: Member
(42) Dr. V. H. Pradhan, Professor, AMHD, SVNIT, Surat	: Member
(43) Dr. Neeru Adlakha, Professor, AMHD, SVNIT, Surat	: Member
(44) Dr. Smita Jauhari, Professor, DoC, SVNIT, Surat	: Member
(45) Dr. K. N. Pathak, Professor, DoP, SVNIT, Surat	: Member
(46) Dr. P. V. Timbadia, Dean (A&RG), SVNIT, Surat	: Invitee
(47) Dr. Ravi Kant, Dean (Students' Welfare), SVNIT, Surat	: Invitee
(48) Dr. C. M. Patel, Asso. Prof. & Head, ChED, SVNIT, Surat	: Invitee
(49) Dr. P. N. Patel, Asso. Prof. & Head, ECED, SVNIT, Surat	: Invitee
(50) Dr. Sushil Kumar, Asso. Prof. & Head, AMHD, SVNIT, Surat	: Invitee
(51) Dr. Suresh Kumar, Asso. Prof. Head, DoC, SVNIT, Surat	: Invitee
(52) Dr. D. V. Shah, Asso. Prof. & Head, DoP, SVNIT, Surat	: Invitee
(53) Dr. H. R. Jariwala, Asso. Prof. & Asso. Dean (Academic) SVNIT, Surat	: Invitee
(54) Dr. R. D. Shah, Asso. Prof. & Asso. Dean (Academic) SVNIT, Surat	: Invitee
(55) Dr. Vipul Kheraj, Asso. Prof. & Asso. Dean (Faculty Welfare) SVNIT, Surat	: Invitee
(56) Dr. G. R. Vesmawala, Asso. Prof. & Asso. Dean (P&D), SVNIT, Surat	: Invitee
(57) Dr. S. S. Arkatkar, Asso. Prof. & Asso. Dean (P&D), SVNIT, Surat	: Invitee
(58) Dr. K. D. Yadav, Asso. Prof. & Asso. Dean (R&C) SVNIT, Sura	: Invitee
(59) Dr. H. B. Mehta, Asso. Prof. & Asso. Dean (R&C), SVNIT, Sura	: Invitee
(60) Dr. S. R. Patel, Asso. Prof. & Asso. Dean (Students Welfare) SVNIT, Surat	: Invitee
(61) Dr. P. V. Bhale, Asso. Prof. MED & BoG Member SVNIT, Surat	: Invitee
(62) Shri Amit C. Patel, I/c. Dy. Registrar (Academic), SVNIT, Surat	: Invitee
(63) Shri M. K. Manglam, Asst. Registrar (Academic), SVNIT, Surat	: Invitee
(64) Dr. Pramod Mathur, Registrar, SVNIT, Surat	: Secretary

Further, Dr. D. P. Vakharia, Professor, Mechanical Engineering Department, SVNIT, Surat could not attend the meeting.

INTRODUCTION BY The CHAIRMAN

At the outset, the Chairman Senate welcomed all the members to the 50th meeting of the Senate. He specially welcomed the external members, Prof. Pranab Kumar Mohapatra, IIT Gandhinagar, Prof. C. P. Rao, IIT Tirupati, Prof. G. K. Adil, IIT Bombay and Prof. G. Bhuvaneshwari, IIT Delhi.

He welcomed the new Dean (Academic), Prof. S. N. Sharma and new Associate Dean (Academic), Dr. R. D. Shah. He also placed on record the excellent work carried out by the outgoing Dean (Academic), Prof. J. Banerjee.

Since the last meeting of the Senate, three meetings of the IAAC (Institute Academic Advisory Committee), i.e. the 48th, 49th and 50th, were convened. The meetings of the IAAC

Minutes of 50th meeting of the Senate held on May 19, 2021

Page 2 of 15

(mamer

were conducted on February 25, 2021, April 12, 2021 and April 29, 2021 respectively. In addition to the previously-mentioned three meetings, the 10th meeting of the Standing Executive Committee was conducted on March 31, 2021. The resolutions of the above-mentioned meetings will be reviewed and if agreed, ratified in this meeting.

In spite of the pandemic situation, the faculty members were actively involved in various events such as International Conferences, workshops, training programs, etc. The total number of such events in the last one year is more than 100. As a part of Diamond Jubilee Year Celebration of the Institute, these events were planned and selected by a committee chaired by Prof. P. L. Patel, Dy. Director, and a special fund was made available to support above events.

He briefed the members about the following special achievements of the faculty/ students since last senate meeting.

- 1. Award of Design patents/ patents
 - Dr. H. B. Mehta, Dr. J. Banerjee and Mr. Nishant Shah, Mechanical Engineering Department.
 - (ii) Dr. Shailendra Kumar, Mechanical Engineering Department.
 - (iii) Dr. Harshit Dave, Mechanical Engineering Department.
 - (iv) Dr. Satyajit Patel and Ms. Deepti Patel, Civil Engineering Department.
 - (v) Dr. K. D. Yadav, Civil Engineering Department
 - (vi) Dr. Pawan Sharma, Mechanical Engineering Department.
 - (vii) Dr. Alka Mungray and Mr. Pankaj Pradeshi, Chemical Engineering Department
- 2. Dr. G. R. Vesmawala and Dr. Y. D. Patil got sanction from GUJCOST for a Research Project of Rs. 27.77 lakhs
- 3. Dr. P. V. Timbadiya, Civil Engineering Department is selected for Prof. R. J. Garde Research Award for the year 2020.
- 4. Dr. Kalpana Maheria, Department of Chemistry got Women Research Award
- Prof. C. H. Solanki and Dr. Satyajit Patel got published as editors the proceedings of IGC 2019 held at Surat through Springer Publisher.
- 6. Mr. Partha Das, Former B. Tech student of computer Department got appreciation letter from Police Department for software developed on vehicle tracking system.

Minutes of 50th meeting of the Senate held on May 19, 2021

Page **3** of **15**

mathie

- 7. Mr. Ritvik Chauhan of Civil Engineering Department under the guidance of Dr. Sriniwas Arkatkar and Dr. Ashish Dhamaniya got an award for collaborative Research at Ryerson University, Canada.
- 8. Five of our students working under DRISHTI group got Rs. 50,000 cash prize in recently held ROBOFEST event.
- 9. Mr. Akshay Bura, PhD student of Civil Engineering Department under the guidance of Dr. B. Kondraivendhan received NACE scholarship of Rs. 1.5 lakhs.
- 10. Dr. Priyank Sharma, former PhD student of Civil Engineering Department guided by Dr. P. L. Patel got ISH Best Thesis Award.
- 11. Mr. Aafaq Inamdar, M. Tech of Computer Engineering Department has won Bronze Medal in International Power Lifting Competition.

The Senate congratulated the above Faculty and students for their achievement. Thereafter, the Dean (Academic) was requested to proceed with the agenda items.

Item:1	To confirm the minutes of the 49 th meeting of the Senate, held on 22 nd October 2020.
	Annexure I
Res. 1	Confirmed.
Item:2	To note and approve the Actions Taken on the resolutions, adopted in the 49 th meeting of
	the Senate held on 22 nd October 2020. Annexure II
Res. 2	The 'Actions Taken Report (ATR)' was presented by the Dean (Academic). The House noted
	and approved the actions taken on the minutes of 49 th meeting of the Senate.
Item:3	To consider and adopt a resolution about the introduction of the Centre for Inter-
	Disciplinary Research (CIDR) as a significant part of imparting education and training
	to young generations to meet contemporary global requirements.
	SVNIT, Surat is working to setup a Centre for Inter-Disciplinary Research (CIDR) that is aimed to cater to the need for addressing technological problems that overlap multiple
	Engineering disciplines and/or Engineering/Science disciplines. This centre is also aimed to provide a framework for interdisciplinary research-based growth. The motivation for this Centre, comes from the following:
	• The continuously evolving Engineering education practices in the globally changing scenario, has led to focusing on experiential and project-based learning. Hence, it is now necessary to encourage problem specific research. The problem specific research

Items and resolutions:

Minutes of 50th meeting of the Senate held on May 19, 2021

Page 4 of 15

mamer Julil 201

is expected to lead to development of new technologies and new Proof of Concepts.

• The proposed Centre for Inter-Disciplinary Research (CIDR) is aimed to help, facilitate and equip the community (students, faculty members) to take up challenging problems faced by the industry and the society at large.

• It is also expected that CIDR would become an umbrella framework under which the PhD, the Masters and the undergraduate students would be able to witness and be part of learning, how the theoretical principles they learn in classes, can be applied to solve real world problems with an inter/cross-disciplinary approach to problem solving. The motivation is driven by the fact that a real-world problem-solving approach does not have any discipline per se, it may require integrating knowledge and skills spanning different engineering and science disciplines.

A committee was set up vide:E/459 dated 25th Aug 2020 consisting of the following members viz. Prof D C Jinwala (Chairman), Prof P A Parikh, Prof A A Shaikh, Dr P V Bhale and Dr Vipul Kheraj. SVNIT, Surat submitted a proposal to setup a Centre for Inter-Disciplinary Research aimed to cater to the need for addressing technological problems that overlap multiple Engineering disciplines and/or Engineering/Science disciplines. This centre is also aimed to provide a framework for interdisciplinary research-based growth.

Objectives:

The objectives, of the proposed CIDR, in general would be as follows:

- 1. Identification and continuous review of the Focus areas that are inter, cross, and multidisciplinary in nature. In the case of cross-disciplinarity, the boundaries of disciplines are crossed but no techniques or ideals, while interdisciplinarity blends the practices and assumptions of each discipline involved.
- 2. Identification of and offering the academic programs of multidisciplinary nature and facilitate the same being offered to fresh students and industry employees on part-time basis.
- 3. Facilitate the multidisciplinary translational research at different levels Faculty, and students (Ph.D., Master's, Bachelor's level) in the focus areas.
- 4. Identification of and offering the short-term training programs in niche areas for the industry.
- 5. Identification of and offering the short-term training programs for the fresh graduates of the other Engineering institutes in the region.
- 6. Liaison with the other academic institutes of repute and with the industry to facilitate the research in the focus areas.

As per the activities submitted in the proposal, following activities are to be carried out

Minutes of 50th meeting of the Senate held on May 19, 2021

Page 5 of 15

and the second s	
	under the CIDR, to be reviewed periodically and subject to the approval of the appropriate academic bodies:
	I. Commencement of Minor Programs at B. Tech. level, that are interdisciplinary in nature.
	II. Self-financed Graduate Engineering Certification course in Design Engineering.
	industry employees.
	IV. Joint M Tech/M Sc programs between two or more departments of the institute and/or between two different institutes.
	V. Facilitate the multidisciplinary translational research at different levels – Faculty, and students (Ph.D., Master's, Bachelor's level) in the focus areas.
	VI. Identification of and offering the short-term training programs in niche areas:
	VII. Identification of and offering the short-term training programs for the fresh graduates of the other Engineering institutes in the region:
	VIII. Liaison with the other academic institutes of repute and with the industry to
	facilitate the research in the cross-disciplinary focus areas.
	The Senate is requested to approve the aforesaid CIDR proposal.
Res. 3	Prof. D. C. Jinwala, Chairman, CIDR gave a presentation related to the proposed CIDR
	activities. The House appreciated the introduction of the CIDR as a part of the SVNIT. The
	Senate members expressed their views and suggestions for the productiveness and longevity
	of the CIDR. The concerning major ingredients of the discussions were New Education Policy
	(NEP) 2020 perspective, available existing resources, initial capital expenditure, and budget
	The House recommended to prepare a complete and forward-looking Brochure for the
	beginning of the CIDR spanning from the admission process to the award of
	degrees/certificates, including possible post-course opportunities after getting the approval
	from the Board of Governors of the Institute. Further, the Chairman Senate requested the
	members of the august House that they can submit their observation to the Dean
	(Academic)/Chairman, CIDR within a week time for incorporating the same in the minutes of
	the meeting. The suggestions received have been incorporated.
	The House expressed in-principal agreement with the introduction of the CIDR as a part of
	the Institute and recommended its approval to the Board of Governors of the Institute.
	As per the suggestions received from Senate members, the Centre for Inter-Disciplinary
	Research is renamed as Center for Inter-Disciplinary Education and Research (CIDER).
	이 같이 집에 가지 않는 것 같은 것 같은 것 같이 있는 것 같이 있는 것 같은 것 같은 것 같이 많이 있는 것 같이 없다.

Page 6 of 15

mamur

Item:4	To ratify a resolution adopted in the 9 th meeting of the Standing Executive Committee			
	(SEC) of the Senate held on 4 th December 2020.			
	The recommendation is shout the mode and uncertained for a found for a former termination			
	The recommendation is about the mode and procedure of End Semester Examination			
	spanning from /" to 12" December 2020 following the resolutions of 'Meeting of Heads of			
	the Departments' held on November 13, 2020.			
	Link: https://www.svnit.ac.in/Data/minutes/sec/SECMinutes-Heldon04-12-2020.pdf			
Res. 4	The resolutions adopted in 9 th meeting of Standing Executive Committee (SEC) were ratified.			
Item:5	To consider and adopt resolutions about the 'recommendations' made in the 48 th			
	meeting of the Institute Academic Advisory Committee (IAAC), held on 25 th February			
	2021.			
	Link: https://www.svnit.ac.in/Data/minutes/iaac/48th%20IAAC%20Minutes.pdf .			
	The resolutions recommended are as follows:			
	1. To allow the category conversion of PhD student Mr. Hitesh Bansu (DS14MA003), the FIR to the PEC, working under the Supervision of Dr. Sushil Kumar. (Resolution. 48.1).			
	2. To allow an addition of Supervisor Dr. Vipul M. Patel (Assistant Professor, Mechanical Engineering Department) for the PhD thesis supervision of Mr. Mihir Pandya (D20ME015). The existing Supervisor is Dr. H. B. Mehta. (Resolution. 48.2).			
	3. To approve a change in the name of Computer Engineering Department to Computer Science and Engineering Department. (Resolution 48.3(a)).			
	4. To allow an addition of a Supervisor for the PhD thesis supervision of Mr. Deepak Vishwakarma (DS20CH001), a Part-time External Category (PEC) Student. The rearrangement is Dr. V. K. Rathore and Professor P. A. Parikh. (Resolution. 48.4).			
	5. To allow an addition of Supervisor Dr. Prabhat Chandra Scientist-E, CWPRS, for PhD student Mr. Banwari Lal Meena (PEC category, D19CE005). Existing Supervisor: Dr. P. L. Patel. (Resolution 48.6).			
	6. To approve EE212-Signals and Systems (3-1-0, 4 credits) as an equivalent subject to EE202- Networks and Systems (4-1-0, 05 credits) for Mr. Kenneth Vaz (U17EE013) in the B. Tech.IInd year, IV semester. (Resolution 48.7(1)).			

Page **7** of **15**

mamer

7. To approve the mark scheme of the third and fourth semesters of M. Tech. program in Electrical Engineering with specialization in Instrumentation and Control (IC). It was decided to adopt the mark scheme (third and fourth semesters) of the IC in the line with the mark scheme of third and fourth semesters of other existing PG programs of the Electrical Engineering Department. (Resolution 48.7(3)).

8. To consider a change in the name of Applied Mathematics and Humanities Department, i.e. the revised name recommended is Department of Mathematics and Humanities. (Resolution 48.8).

9. To consider the recommendations about 'the revision in the nomenclatures of the Academic Departments' of the Institute. (Resolution 48.9).

Currently	Recommended
Department of Chemistry	Department of Chemistry
Department of Physics	Department of Physics
Applied Mathematics and Humanities Department	Department of Mathematics and Humanities
Civil Engineering Department	Department of Civil Engineering
Chemical Engineering Department	Department of Chemical Engineering
Computer Science and Engineering Department	Department of Computer Science and Engineering
Electrical Engineering Department	Department of Electrical Engineering
Electronics Engineering Department	Department of Electronics Engineering
Mechanical Engineering Department	Department of Mechanical Engineering

10. To consider a recommendation about the renaming of M.Tech. program (Specialization: Soil Mechanics and Foundation Engineering). The revised name recommended is M. Tech. program (Specialization: Geotechnical Engineering) offered by Civil Engineering Department. (Resolution 48.13).

- Res. 5 (a) The Senate approved the sub items listed at the serial orders 1-7.
 - (b) The Dean (Academic) explained the previous, current and the proposed nomenclatures from the perspectives of achieving uniformity and inclusivity in the academic Departments of the Institute. The Senate recommended the second column of the table of the sub item 9 for its onward ratification to the Board of Governors of the Institute. Notably, sub items 3 and 8 are included in the sub item 9.
 - (c) The Senate resolved the sub item listed at the serial order 10 and agreed to revise the aforesaid M.Tech. program nomenclature as 'Geotechnical Engineering'. Further, recommended its ratification to the Board of Governors.

Minutes of 50th meeting of the Senate held on May 19, 2021

Page 8 of 15



1	Examiners during the viva-voce as well.				
	(iii) Submission part: The question paper, and results, <i>signed by all panel members</i> , would be submitted to the Academic Section for the result preparation and records. 'The viva-voce recording (online mode case) needs to be sent to the Academic Section.				
	4. To introduce a uniform prescribed format for the comprehensive assessment result sheet of the Research Scholar, which is to be submitted to the Academic Section. (Resolution 10.5 of the 10 th meeting of the Standing Executive Committee). <i>Annexure III</i>				
	5. About the XX grade. It was resolved to adopt non-applicability of the XX grade for th academic programmes of the Academic Year 2020-21 due to limitations attributed to th pandemic complexity. (Resolution 10.7 of the 10 th meeting of the Standing Executiv Committee).				
Res. 6	(a) The Senate ratified the sub items listed at the serial orders 1-3.				
	 (b) The Dean (Academic) explained the analytics of the proposed revised Comprehensive Assessment given in the <i>fourth</i> sub item. That stands ratified. Furthermore, the House ratified the revised evaluation scheme, procedural and submission parts associated with the Comprehensive assessment of the PhD students. 				
14	(c) The sub-item instea at the serial order 5 is ratified.				
Item:/	To consider and adopt resolutions about the 'recommendations' made in the 49 th				
	meeting of the Institute Academic Advisory Committee (IAAC), held on 12 th April 2021.				
	The resolutions recommended are as follows:				
	1. Revised specializations for the Ph.D. admission (QIP category) of the Computer Engineering Department (Resolutions 48.3(d) and 49.1(a)).				
	Existing specializations Revised specializations				
	Information Security and Privacy, Software Requirements, Specification using Vision/Image Processing, Machine Learning, Soft Computing, Wireless Network, Automata, Compiler.Information Security and Privacy, Software Requirement and Specifications, Computer Vision, Image Processing, Soft Computing, Computer Network, Theoretical Computer Science, Compiler, High Performance Computing, Artificial Intelligence.				
	2. Regarding the proposed setup for the mode of theory teaching, laboratory demonstration, examination and evaluation mark scheme for the academic programmes				

Page **10** of **15**

Amathur Jul 612000

	of AY 2020-2021. (10 th SEC meeting resolution 10.2 and 48 th IAAC resolution 11, Minutes of Task Force Meeting and Circular dated: 02/04/2021 and 49.1(b)). <i>Annexure IV</i>
	3. A revised syllabus for the comprehensive assessment of PhD students associated with Structural Engineering Section of Civil Engineering Department. (Resolution 49.5(a)).
	4. It was resolved to consider a request of Mr. Abhijeet P. Keskar (D18CE005), working under the supervision of Dr. G. D. Kale, about the category conversion from the FIR to the PEC. (Resolution 49.5(b)).
	5. To discuss and adopt resolutions about PhD students of Civil Engineering Department aspiring to enroll for additional credit/audit courses after the successful completion of the comprehensive examination and the transcript release for these additional credit/audit courses. (Resolution 49.4.(d)).
	6. The category conversion of Mr. Rohit Verma (DS18MA001) from the FRS to FIR working under the Supervision of Dr. Sushil Kumar. (Resolution 49.7).
	7. The section/specialization-specific syllabi and the mark scheme for the comprehensive assessment of PhD students of Electronics Engineering Department. (Resolution 49.8(a)).
	8. To contemplate and finalize the contents of the proposed 'Academic Calendar' of the Academic Year 2021-22. <i>Annexure V</i>
	9. To discuss about the date of the nineteenth Convocation along with the mode and venue of the Convocation etc. A need for the in-campus Convocation was expressed as well. (Resolution 49.12).
	10. Waiving off a semester stay requirement in the campus for the PhD Part-time External Candidates (PEC) category. Limitations stemming from the COVID- 19 situations led to the relaxation. (Resolution 49.13).
Res. 7	(a) The Senate approved the sub items at the serial orders 1-4.
	(b) The sub item listed at the serial order 5 was discussed and it was decided to invite the opinions of the DAAC members of the respective Departments.
	(c) The Senate approved the sub items listed at the serial orders 6-7. Furthermore, about sub item 7, the Department would abide by the Comprehensive assessment enumeration given in the sub item 3 of the item 6 of the minutes of the 50 th meeting of the Senate.
	(d) Regarding the sub item 8, the Dean (Academic) explained the extended activities
	enumerated in the proposed Calendar by embedding additional activities of the PhD

Page **11** of **15**

mamur

	programme as well as their timeline. The Dean Students' Welfare explained the			
	timeline of the Spring fest of the Institute as well. The Senate approved the Academic			
	Calendar of the Academic Year 2021-22, see Annexure V. In addition to this, it was			
	decided 'the revised last date of submission of the M.Tech. and the M.Sc.			
	Dissertations of the Academic Year 2020-21 is July 15, 2021'.			
8	(e) The sub item listed at the serial order 9 was noted and appreciated 'the initiatives for			
	the nineteenth Convocation'. The inputs were invited regarding the Convocation			
	dignitaries' invitation. The suggestions were invited from the Senate Members			
	preferably within a two-week time duration since the current Senate meeting.			
	(f) The Senate approved the sub-item listed at the covial order 10			
	(1) The Senate approved the sub-item listed at the senal order 10.			
Item:8	To consider and adopt resolutions about the 'recommendations' made in the 50th			
	meeting of the Institute Academic Advisory Committee (IAAC), held on 29th April 2021			
	Link: https://www.svnit.ac.in/Data/minutes/iaac/50th%20IAAC%20Minutes.pdf.			
	Students may opt an alternative to the End Semester Examination scheduled in the			
	month of May 2021. The option is the Supplementary examination scheduled in the month of			
	July 2021. This arrangement is applicable via submitting documents through proper chanr			
	and citing the COVID-19 reasons and/or 'internet uncertainty during the examination'.			
	Reference: 50th meeting of the Institute Academic Advisory Committee (IAAC).			
Res. 8	Resolved and approved with the inclusion of the cyclone reason. That are as follows.			
	Students of the first year B Tech and MSc programs of the Academic year 2020-21, who			
	were not able to write the mid semester examination (Spring semester), have an 'option' to			
	write the corresponding make-up test.			
	Interestingly, the validity of the 'option' holds for one of the following or a combination			
	of the more than one reasons: (i) cyclone reason, (ii) internet uncertainty during the			
	examination and (iii) COVID reason.			
	In this regard, the students have to submit the request to the concerned subject			
	Coordinator with information to the Concerned Head of the Department.			
	Resolution 49.1(b) of the IAAC is applicable for mode of examination.			

Page **12** of **15**

mamur

Item:9	To discuss and consider the recommendation of the committee on 'revising guidelines for				
	the Examination Disciplinary Committee (EDC) of the Academic Programmes of the				
	Institute'.				
	The recommendations of the Committee on 'revising guidelines for the Examination				
	Disciplinary Committee are placed at Annexure VI.				
	The Senate is requested to note and approve the recommendations of the Committee by				
	adopting suitable resolutions.				
Res. 9	Approved with a correction via omitting a set of words of the report (page number 04, the				
	point 4 of section C of Annexure VI.), i.e. any kind of award of character certificate in				
	future'. The approved sentence is "A student once punished under the 'Unfair Means'				
	shall not be eligible for award of any Institute medal".				
Item:10	To discuss and adopt resolutions about the aspiration of M.Sc. students for the				
	government scholarship as well as expectations of the financial support from the				
	Institute, including fee remission applicability.				
Res. 10	In this regard, a Committee was formed vide Dean(Acad)/77/2020-21, dated 01/04/2021				
	(please see Annexure VIA). The Senate deliberated the findings of the Committee and noted				
	the non-responsiveness of the Scholarship Section of the Uttar Pradesh Government following				
	the correspondences were made in the past. Furthermore, the following were resolved:				
1	1. The Institute may consider a partial financial consideration as it deems fit depending on its				
	rationality, substantivity and availability of funds etc.				
	2. The fee waiver policy holds applicable to B Tech students under the specific categories				
	amounting their tuition fee to 125000 rupees per student per annum. Thus, the tuition fee				
	contrast between the B Tech and MSc Students does not hold applicable. For greater details,				
	the following References may be referred:				
	 (i) Revision of fees in the National Institute of Technology (NITs), vide an Order No.: F. No. 33-4/2014-TS.III, dated 24th June, 2016, issued by Govt. of India, Ministry of Human Recourse Development, Department of Higher Education. 				
	 (ii) Revision of fees in the NITs and IIEST – issue of clarification, vide an Order No.: F. No. 33-4/2014-TS.III, dated 2nd July, 2016, issued by Govt. of India, Ministry of Human Recourse Development, Department of Higher Education. 				

Page 13 of 15

To consider a proposal for a revised 'grading system' pertaining to the course work Item:11 evaluation of the PhD student.

The Scholar has to earn sixteen-credit in terms of the course requirement, including a credit seminar (max). The minimum requisite grade and CGPA for the successful completion of the requirement are CC grade and 'six' CGPA respectively.

		Existin	g grading system	Propo.	sed grading system	
		Grade	Grade Points	Grade	Grade Points	
		AA	10	AA	10	
		AB	9	AB	9	
		BB	8	BB	8	
		BC	7	BC	7	
		CC	6	CC	6	
		CD	5	CD	0	
		DD	4	DD	0	
		FF	0	FF	0	
		II	-	II	-	
		NA		NA	-	
		ww		ww	-	
		XX		XX	-	
	Thus, it is propo	bsed to assig	n '0' grade point to	the grades	CD and DD.	
Res.11	Resolved to app	prove the ex	xisting grading sy	stem under	Ph.D, Regulations.	Further, it was
	advised to appea	nd a remark	in the grade sheet	that the CC	Grade is the minim	um requisite in
	each subject to a	complete the	course requireme	nt.		
Item:12	To note and approve a template for the PhD thesis examiners' panel sheet appended					
	with the signatures of the Pre-synopsis committee members.					
	That signifies the agreement of the pre-synopsis committee members with the					
	proposed Examiners' panel (46th IAAC resolution no.9). Annexure VII					
Res. 12	Approved with a correction of omitting the mobile number details of the foreign Examiner.					

Minutes of 50th meeting of the Senate held on May 19, 2021

Page **14** of **15**

(mamul

Item:13	An extension of the online examination arrangement resolution (the Senate resolutions			
1-12-12-14-1-16-1	47.4.9, 47.4.13, 48.9.9).			
Res. 13	It is resolved to extend existing online examination arrangement till further undates			
Item 14	A hard and the second existing on the examination arrangement the further updates.			
Item:14	About revisions in the schemes and syllabi of the M. Tech. programmes of the Institute			
	(39th IAAC resolution 2).			
Res. 14	Agreed. It was suggested to forward the revised Scheme and syllabus of the M. Tech			
	program through the respective DAAC for necessary onward considerations.			
Any othe	ther item with permission of the Chair.			
Item:15	A guideline for the admission of the students through the ICCR in different programmes			
	of the Institute.			
Res. 15	It is resolved that the Brochure needs to be devised for the ICCR admission to the PhD			
	programme of the Institute. It was approved to conduct the presentation/ interview of the			
	ICCR scholars for admissions to the PhD programme of the Institute in lieu of a combination			
	of the written test-presentation/interview.			
Item:16	To begin the programme of Post-Doctoral Fellowship (PDF)/ Post-Doctoral Researcher			
	(PDR) in the Institute.			
Res. 16	The Dean (Academic) explained the usefulness of Post-Doctoral opportunities for the			
	research augmentation of the Institute. It is resolved to submit a comprehensive, forward-			
	looking proposal for 'the creation of Post-Doctoral opportunities at the SVNIT' for			
	discussions and the adoption.			

REGISTRAR SECRETARY - SENATE

1416121

DIRECTOR CHAIRMAN - SENATE

Minutes of 50th meeting of the Senate held on May 19, 2021



SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

The Action Taken Report on the minutes of the 50th meeting of the Senate of the Sardar Vallabhbhai National Institute of Technology, Surat held on Wednesday, 19th May, 2021, 03:00 p.m. onwards in the Online Mode, is appended below:

No.	Resolution	Action Taken
Reso. 1:	"Resolved that the minutes of the 49th meeting of	Confirmed and noted.
	the Senate, held on 22nd October 2020 be	
	confirmed."Annexure I	
Reso. 2:	"The 'Action Taken Report (ATR)' was presented	Noted and action initiated.
	by the Dean (Academic). The House noted and	
	approved the actions taken on the minutes of 49th	
D 2.	"Bref D C Linux Chairman CIDED cause	Natal
Keso. 3:	prof. D. C. Jinwala, Chairman, CIDER gave a	Noted.
	activities The House appreciated the introduction	
	of the CIDR as a part of the SVNIT. The Senate	
	members expressed their views and suggestions for	
	the productiveness and longevity of the CIDR. The	
	concerning major ingredients of the discussions	
	were New Education Policy (NEP) 2020	
	perspective, available existing resources, initial	
	capital expenditure, and budget formulation aspects.	
	The House recommended to prepare a complete	
	and forward-looking Brochure for the beginning of	
	the CIDR spanning from the admission process to	
	the award of degrees/certificates, including possible	
	from the Board of Covernment of the Institute	
	Further the Chairman Senate requested the	
	members of the august House that they can submit	
	their observation to the Dean (Academic)/Chairman	
	CIDR within a week time for incorporating the	
	same in the minutes of the meeting. The suggestions	
	received have been incorporated.	
	The House expressed in-principal agreement with	
	the introduction of the CIDR as a part of the	
	Institute and recommended its approval to the Board	
	of Governors of the Institute.	
	As per the suggestions received from Senate	
	members, the Centre for Inter-Disciplinary Research	
	is renamed as Center for Inter-Disciplinary	

Reso. 4:	"The r	esolutions adopted in 9th meeting of Standing	Implemented accordingly.
	Execut	tive Committee (SEC) were ratified".	
Reso. 5:	(a)	The Senate approved the sub items listed at	Implemented.
		the serial orders 1-7.	
	(b)	The Dean (Academic) explained the	Implemented.
		previous, current and the proposed	
		nomenclatures from the perspectives of	
		achieving uniformity and inclusivity in the	
		academic Departments of the Institute. The	
		Senate recommended the second column of	
		the table of the sub item 9 for its onward	
		ratification to the Board of Governors of the	
		included in the sub-item 0	
	(a)	The Senate received the sub-item listed at	Implemented
	(0)	the serial order 10 and agreed to revise the	Implemented.
		aforesaid M Tech programme	
		nomenclature as 'Geotechnical	
		Engineering' Further, recommended its	
		ratification to the Board of Governors.	
Reso. 6:	(a)	The Senate ratified the sub items listed at	Implemented.
		the serial orders 1-3.	1
	(b)	The Dean (Academic) explained the	Implemented.
		analytics of the proposed revised	1
		Comprehensive Assessment given in the	
		fourth sub item. That stands ratified.	
		Furthermore, the House ratified the revised	
		evaluation scheme, procedural and	
		submission parts associated with the	
		Comprehensive assessment of the PhD	
		students.	T 1 4 1
	(c)	The sub-item listed at the serial order 5 is	Implemented.
Dec. 7.	(-)	The Senate engraved the sub items at the	Implemented
Keso. /:	(a)	approved the sub-field at the	Implemented.
	(b)	The sub-item listed at the seriel order 5 was	Noted
	(0)	discussed and it was decided to invite the	Noted.
		opinions of the DAAC members of the	
		respective Departments	
	(c)	The Senate approved the sub items listed at	Implemented.
		the serial orders 6-7. Furthermore, about	
		sub item 7, the Department would abide by	
		the Comprehensive assessment enumeration	
		given in the sub item 3 of the item 6 of the	
		minutes of the 50th meeting of the Senate.	
	(d)	Regarding the sub item 8, the Dean	Implemented.
		(Academic) explained the extended	
		activities enumerated in the proposed	
		Calendar by embedding additional activities	
		of the PhD programme as well as their	

		timeline. The Dean Students' Welfare	
		explained the timeline of the Spring fest of	
		the Institute as well. The Senate approved	
		the Academic Calendar of the Academic	
		Year 2021-22, see Annexure V. In addition	
		to this it was decided 'the revised last date	
		of submission of the M Tech and the M Se	
		Disportations of the Academic Yory 2020 21	
		Dissertations of the Academic Year 2020-21	
		1s July 15, 2021 ⁷ .	
	(e)	The sub item listed at the serial order 9 was	Noted.
		noted and appreciated 'the initiatives for the	
		nineteenth Convocation'. The inputs were	
		invited regarding the Convocation	
		dignitaries' invitation. The suggestions	
		were invited from the Senate Members	
		preferably within a two-week time duration	
		since the current Senate meeting.	
	(f)	The Senate approved the sub-item listed at	Implemented
		the serial order 10	impremented.
Reso 8		Resolved and approved with the inclusion of	Acted accordingly
IC30. 0	the cyc	lone reason. That are as follows:	reted accordingry.
	the eye	Students of the first year B Tech and MSc.	
	progra	ms of the Academic year 2020 21, who were	
	program	la to write the mid competer examination	
	filot au	te to write the find semester examination	
	(Spring	g semester), have an option to write the	
	corresp	bonding make-up test.	
		Interestingly, the validity of the 'option'	
	holds f	for one of the following or a combination of	
	the mo	ore than one reasons: (i) cyclone reason, (ii)	
	interne	t uncertainty during the examination and (iii)	
	COVII	D reason.	
		In this regard, the students have to submit	
	the red	quest to the concerned subject Coordinator	
	with in	nformation to the Concerned Head of the	
	Depart	ment.	
	Resolu	tion 49.1(b) of the IAAC is applicable for	
	mode o	of examination.	
Reso. 9:	Approv	ved with a correction via omitting a set of	Noted.
	words	of the report (page number 04, the point 4 of	
	section	C of Annexure VL), i.e. any kind of award	
	of cha	racter certificate in future' The approved	
	senten	be is "A student once nunished under the	
	•Unfai	r Moons' shall not be aligible for eward of	
	ony In	stituto model?	
Dece 10.	In thi	stitute incurat .	A stad sacandinaly
NESU.1U :		h = 100000000000000000000000000000000000	Acteu accordingry
		Acauj////2020-21, dated $U1/04/2021$ (please	
	see An	inexure VI A). The Senate deliberated the	
	finding	is of the Committee and noted the non-	
	respon	siveness of the Scholarship Section of the	
	Uttar	Pradesh Government following the	

	correspondences were made in the past.	
	Furthermore, the following were resolved:	
	1. The Institute may consider a partial financial	
	consideration as it deems fit depending on its	
	rationality, substantively and availability of funds	
	2. The fee waiver policy holds applicable to B Tech	
	students under the specific categories amounting	
	their tuition fee to 125000 rupees per student per	
	annum. Thus, the tuition fee contrast between the B	
	Tech and MSc Students does not hold applicable.	
	For greater details, the following References may be	
	referred:	
	(i) Revision of fees in the National Institute of	
	Technology (NITs), vide an Order No.: F. No.	
	33-4/2014-18.111, dated 24th June, 2016, issued	
	by Govt. of India, Ministry of Human Recourse	
	Education	
	(ii) Revision of fees in the NITs and IIEST – issue	
	of clarification, vide an Order No.: F. No. 33-	
	4/2014-TS.III, dated 2nd July, 2016, issued by	
	Govt. of India, Ministry of Human Recourse	
	Development, Department of Higher	
Dece 11.	Education.	Noted
Nesu.11.	under Ph D Regulations Further it was advised to	Noted.
	append a remark in the grade sheet that the CC	
	Grade is the minimum requisite in each subject to	
	complete the course requirement.	
Reso.12:	Approved with a correction of omitting the mobile	Implemented.
D 10	number details of the foreign Examiner.	
Reso.13:	It is resolved to extend existing online examination	Acted accordingly.
Doso 14.	A gread It was suggested to forward the revised	Noted
NC50.14.	Scheme and syllabus of the M Tech program	Noted.
	through the respective DAAC for necessary onward	
	considerations.	
Any other	item with permission of the Chair.	
Reso.15:	It is resolved that the Brochure needs to be devised	Implemented.
	for the ICCR admission to the PhD programme of	-
	the Institute. It was approved to conduct the	
	presentation/ interview of the ICCR scholars for	
	admissions to the PhD programme of the Institute in	
	lieu of a combination of the written test-	
	presentation/ million view.	

Reso.	.16:	The Dean (Academic) explained the usefulness of Noted.	
		Post-Doctoral opportunities for the research	
		augmentation of the Institute. It is resolved to	
		submit a comprehensive, forward-looking proposal	
		for 'the creation of Post-Doctoral opportunities at	
		the SVNIT' for discussions and the adoption.	

Annexure III

ICCR Academic Brochure, SV NIT

Programme: Bachelor of Technology (B.Tech.)

1.	Eligibility					
	Those candidates who have passed Class 12 / equivalent (Reference JoSAA 2021) examination in 2019, 2020 or 2021; or those who are appearing in Class 12 / equivalent examination in 2021, are eligible. Candidates who have passed Class 12/equivalent examination in 2018 or before as well as those who will appear in such examination in 2022 or later are not eligible. The candidate has secured minimum 75% of aggregate marks in the Class XII (or equivalent) examination of the respective stream and Board. However, eligibility criterion of scoring minimum 75% in Class 12th has been relaxed for the next Academic Year 2021-22.					
	Student must have	e opte	d following subjects during	Class 12/equiva	lent.	
	 (i) Physics (ii) Mathematics (iii) Any one of Chemistry, biology, biotechnology, technical vocation subject. (iv) A language (v) Any subject other than the above four 					
2.	Selection					
	The merit list of	all el	igible ICCR students for B	Tech. will be j	prepared based on	
3	subjects mentione	d in t	he eligibility clause.			
		6	Department	Number of	-	
		No.	Department	offered seats*		
		1.	Civil Engineering	05		
		2.	Mechanical Engineering	06		
			Electrical Engineering	04	-	
			Electronics and Communication Engineering	04		
		5.	Chemical Engineering	01		
	Total 20					
	*As per Letter No. AAI/327/01/2016 dated: June 24, 2016. Note: Out of overall 20 seats, 01 seat in each discipline and 01 additional seat of Computer Science and Engineering is transferred to the Welfare Department as per OM No. F.No. 19-1/2019-TC dated: 09/04/2019 of Department of Higher Education, MHRD.					
	After admissions to the B Tech program of the SV NIT, the SV NIT academic regulation for the B Tech programme holds applicable.					

ATAS Manhi Page I of 3



Programme: Master of Technology (M.Tech.)

1.	Eligibility				
	B.E. / B.Tech. / B.Arch. or equivalent degree in respective discipline with minimum 60% marks (CGPA 6.5). The said percentage / CGPA, the above mentioned CGPA/Percentage should be awarded by a recognized University/Institute. The qualifying degree eligibility criterion for the M.Tech. programmes of the Departments of the Institute is in conformity with the CCMT.				
2.	Selection				
	Selection of the candidate for the master programme of the Institute would be based on the performance of the candidate in the written test. Total thirty MCQ/objective/short type questions have to be designed for written test. The mode of the written test is online/digital mode for the academic year 2021-22. Duration of examination is preferably one hour. The Department would post the syllabus of the written test at the 'Student Notice' section of the Institute website. The title of the website notice is 'Written test syllabus for the M Task administing for the ICCP And line the syllabus				
3.	Vacancy (number of seats in the Department)				
	The vacancy criterion of the ICCR admission for the M. Tech. programmes is cited in the 12 th resolution of the 46 th meeting of the IAAC and Resolution 7 of the 48 th meeting of the Senate. That is as follows: two seats are allocated in each PG program under the sponsored category. After admissions to the M Tech program of the SV NIT, the SV NIT academic regulation for the MTech programme holds applicable.				

The Manual Page 2 of 3 J,

Programme: Doctor of Philosophy (PhD)

1.	Eligibility			
	The Candidate shall possess Master Degree in relevant area of research with minimum 60% marks (CGPA 6.0). The said percentage / CGPA with the above-mentioned CGPA/Percentage should be awarded by a recognized University/Institute. For greater details, refer to subsection 2.2.1 of the section 2.2, page number 4 of PhD regulation of SV NIT, July 2019 onwards.			
2.	Selection			
	The selection criterion for the ICCR applicant for the PhD programme is the performance in the presentation/interview conducted by the concerned Department. That is resolved in the 50 th meeting of the Senate of the Institute (Reso. 15). The composition of interview panel is same as that of regular PhD admission interview at the Institute.			
3.	Vacancy (number of seats in the Department)			
	The vacancies of the PhD admission for the ICCR Applicant are as follows:			
	 (i) One seat for each PG section of the Department. The Departments are Civil Engineering, Electrical Engineering, Electronics Engineering Mechanical Engineering. 			
	 (ii) The Computer Engineering (2 seats), Chemical Engineering (2 seats), Applied Physics (2 seats), Department of Chemistry (2 seats) and Applied Mathematics and Humanities (3 seats). The nomenclatures are on the lines of the resolutions of the 46th meeting of the IAAC meeting (Reso. 46.12). 			
	About the PhD Category and Supervison limit concerning the ICCR Scholar			
	The ICCR Scholars admitted for the PhD programme of the Institute would be assigned the Full-Time International Research Scholar (FIS) category, a new addition in the category list. At every point of time, the upper limit for assigning Scholars under the FIS category is one for every supervisor. After admissions to the PhD programme of the SV NIT, the SV NIT academic regulation for the PhD programme holds applicable.			

AChz Minutes 16/8/21

About the percentile calculation

The definitions and interpretations of the percentile concept are many. Expanding the cases results in the revisit to the definition. Here we explain a definition of the percentile calculation.

Definition

Consider a data set of the scores of n elements arranged in the descending order. We wish to assign the percentile to a given element, whose score is contained in the data set. The percentile X of the given specific element implies that X percent of n elements lag behind with respect to the given specific element in the sense of the score.

Calculation of 35 percentile of a given element in a data set

The above definition suggests that $\frac{35n}{100}$ elements lag behind with respect to the given specific element in the sense of the score, where ⁿ is number of elements in the data set.

An example: The score of the specific candidate is 35 percentile.

Suppose 20 Aspirants appear in the PhD entrance set of the SVNIT in a specific question paper, then the term '35 percentile' implies the following.

35n

Using the expression $\overline{100}$, 7 Aspirants lag behind with respect to a specific Aspirant in the sense of score in the specific question paper, where the total number of Aspirants appeared is 20 in the specific question paper. The score of the specific candidate is 35 percentile. The 35-percentile calculation is required in the written part for the PhD admission of the SVNIT.

For the non-integer case, rounding is applicable.

Man Jus ala

Minutes of 51st IAAC meeting held on July 12, 2021

Page 9 of 9

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT <u>ACADEMIC CALENDAR FOR M.Tech.- Ist Semester & Ph.D.- Ist Year</u> (AUTUMN SEMESTER (ODD SEMESTER): A.Y. 2021 - 22)

	Activity	Week	Duration
1	Commencement of teaching	1	Sept. 6 (Mon.),2021
2	Mid Semester Examination	7	Oct. 18 (Mon.) - Oct. 23 (Sat.), 2021
3	Diwali break for Faculty and Students	9	Nov. 01 (Mon.) - Nov. 05 (Fri.), 2021
4	Submission of the XX grades	14	Dec. 10 (Fri.), 2021
5	Make up tests for Mid-Sem / practical Examinations	15	Dec. 13 (Mon.) - Dec. 17 (Fri.), 2021
6	Last day of teaching	15	Dec. 18 (Sat.), 2021
7	End-Semester Examinations	16	Dec.20 (Mon.)- Dec. 24 (Fri.), 2021
8	Commencement of the next Semester	18	Jan. 03(Mon.),2022
9	Supplementary Examinations (Autumn Semester)	-	Feb. 07(Mon.)- Feb. 19(Sat), 2022

Note: (1) Six-day teaching schedule, including Saturdays, would be followed for last ten weeks w.e.f. September 27, 2021.

(2) Their Spring Semester part is same as that of the Spring Semester part of the Academic Calendar of the AY 2021-22 approved in the 50th Senate of the Institute.

- (3) The mode of teaching would be online until further notifications as per the minutes of the 50th Senate meeting [Res. 7.2(a)].
- (4) Procedure for M.Tech. course registration at the Institute will be notified soon.
- (5) The schedule of M.Tech. physical document verification will be notified separately.

JW2C
ANNEXURE - III

Teaching Scheme of M. Tech.-I (Semester I & II)

<u>SEMESTER – I</u>

Sr. No.	Subject	Code	Scheme	Credit
1	Core-1	· .	3-1-0/3-0-2	04
2	Core-2		3-1-0/3-0-2	04
3	Core-3		3-1-0/3-0-2	04
4	Core Elective-1	· .	3-0-0/3-0-2	03
5	Core Elective-2		3-0-0/3-0-2	03
6	Modelling/Simulation/Software Tools Laboratory – 1		0-0-4	02
7	Laboratory Practice – 1		0-0-4	02
		Total	15-3-8=26/ 15-0-18=33	22

<u>Semester – II</u>

Sr. No.	Subject	Code	Scheme	Credit
1	Core-4		3-1-0/3-0-2	05
2	Core-5		3-1-0/3-0-2	05
3	Core Elective-3		3-0-0	03
4	Core Elective-4		3-0-0	03
5	Institute Elective-1		3-0-0	03
6	Modelling/Simulation/Software Tools Laboratory – 2		0-0-4	02
7	Laboratory Practice – 2		0-0-4	02
	· ·	Total	15-2-8=25/ 15-0-12=27	21

A-3.1

M. Tech.-II (Semester III & IV)

<u>SEMESTER – III</u>

Sr. No.	Subject	Code	Scheme	Credit
1	Seminar		0-0-4	02
2	Summer Training*		0-0-0	02
3	Dissertation Preliminaries		0-0-12	06
		Total	0-0-16	10

SEMESTER - IV

Sr. No.	Subject	Code	Scheme	Credit
1	Dissertation		0-0-24	12
		Total	0-0-24=24	12

*Summer training is optional ; to be decided by the department

RANGE: 62-68 Credits (Existing Range 57-62 Credits)

ANNEXURE – IV

B. Tech. (Honours)

Eligibility criteria for getting B. Tech. (Honours) Degree :

The student compulsorily earn

- CGPA > 8.5 at the end of 8th Semester.
- Five theory courses (Minimum 15 additional credits) are to be registered.
- Courses would be from relevant discipline only and higher level courses from PG Programmes.
- All the courses registered in B. Tech. Programme are to be passed in first attempt only.
- All the additional High level courses are to be registered at third and final year of B. Tech. programmes.
- For the student registering for B.Tech. (Honors) course, Final year Project Course has to be registered and completed as individual course on individual basis only.
- The respective departments will device the percentage of students to be allowed for registering B.Tech. (Honors) course.

The student are eligible for direct admission into Ph.D. Programme after graduation.

B. Tech. (Minor)

Eligibility criteria for getting B. Tech. (Minor) Degree :

- The compulsory CORE Courses of a particular discipline at Second Year and Third Year levels will be the MINOR courses for other disciplines
- Five theory courses (Minimum 15 additional credits) are to be registered.
- The student has to complete all the additional registered courses in first attempt only.

- The student has to register Two theory courses (additional) at 2nd year level.
- The student has to register Three theory courses (additional) at 3rd year level.

Maximum 20% student of a particular discipline will be allowed to opt for minor B. Tech. Programme.

S. V. National Institute of Technology, Surat

(Department :_____) (Section :_____)

<u>Comprehensive Assessment of Eligible Ph.D. Candidate</u> (Date:)

Sr. No.	Name of Student	Roll No.	Ph.D. Supervisor	Marks scored in Written Test	Marks scored in Viva	Result
1				Test	voce	

Supervisor(s)

Member 1

(Expert faculty in the relevant specialization from the department)

Member 2 (Expert faculty in the relevant specialization from the department)

Chairman (HoD/Section Head)

Reference: (1) The definition of the section as well example are with the Resolution 5 of the 10th SEC held on March 31, 2021.Members are expert Faculty in the relevant specialization from the Department)

(2) Evaluation Committee (3.1) of academic regulations for the Doctoral programmes (w.e.f. July 2019).

itz

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

SVNIT, Surat is working to setup a Centre for Interdisciplinary Education and Research (CIDER) that is aimed to cater to the need for addressing technological problems that demand a focus that overlaps multiple Engineering disciplines and/or Engineering/Science disciplines. This center is also aimed to provide a framework for interdisciplinary research-based growth at the institute.

Motivation:

- In the continuously evolving Science/Engineering education practices, the globally changing scenario has led to an increased focus on experiential and project-based learning. It is now necessary to encourage problem specific research. The problem specific research is expected to lead to development of new technologies and Proof of Concepts. Since a real-world problem does not have crop up with the name of a discipline tagged to it, it may require integrating knowledge and skills spanning different engineering and science disciplines.
- That is, the project-based learning, experiential learning, or problem specific approach to research requires an interdisciplinary approach of problem solving involving active collaboration of expertise from different domains.
- Thus, it is proposed to create a Centre for Inter-disciplinary Research (CIDER) that will help, facilitate and equip the community (students, faculty members) to take up challenging problems faced by the industry and the society at large.
- The CIDER will provide linkages between Industry and Interdisciplinary faculty expertise to solve industry problems.
- The CIDER is also aimed to serve as a catalyst and facilitate constitution of research interest subgroups consisting of team members with background in different disciplines to attack a given research challenge offered by various Government agencies including PSA office. CIDER will act as a catalyst to integrate the strength of Institute laboratories and expertise to take up such opportunity from funding agencies
- Thus, it is expected that CIDER would become an umbrella framework under which the faculty members, the PhD, the Masters and the undergraduate students would be able to witness and be part of learning, how the theoretical principles, can be applied to solve real world problems with an inter/cross-disciplinary approach to problem solving.

Objectives:

The objectives, of the proposed CIDER, in general would be as follows:

- 1. Identification and continuous review of the need based thrust areas as identified by global scientific community, that are **inter, cross,** and **multidisciplinary** in nature. In the case of cross-disciplinarity, the boundaries of disciplines are crossed but no techniques or ideals, while interdisciplinarity blends the practices and assumptions of each discipline involved.
- 2. Identification of and offering the academic programs of **multidisciplinary** nature and facilitate the same being offered.
- 3. Facilitate the multidisciplinary translational research at different levels Faculty, and students (Ph.D., Master's, Bachelor's level) in the focus areas.
- 4. Identification of and offering the short-term professional training programs in niche areas for the industry.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

- 5. Identification of and offering the professional short-term training programs in the form of proficiency development programs for the fresh graduates of the other Engineering institutes in the region.
- 6. Liaison with the other academic institutes of repute and with the industry to facilitate the research in the focus areas.

Scope of Activities of CIDER:

he CIDER is expected to be engaged in various activities that are as of now proposed as shown further. But, before specifying the umbrella activities under CIDER, the following points are emphasized:

- (a). a CIDER Proposal drafting committee was set up earlier, vide E/459 dated 25th Aug 2020 that did the ground-work required to prepare this document. Subsequently, a CIDER Committee (more of a CIDER Action Plan Committee) has been setup vide E/141/CIDER/138 dated 4th May 2021, for implementing the action points mentioned in the draft proposal, if the draft proposal is recommended for approval to the BoG , by the Senate and if it is eventually approved by the BoG.
- (b). the CIDER activities would revolve fundamentally around the theme, of encouraging multidisciplinary research at the institute. This, in turn is envisaged to increase more collaboration, with the industries and with the peer institutes, without limiting geographical boundaries, also enabling optimal utilization of the existing laboratory and intellectual resources.
- (c). however, in order to imbibe & nurture multidisciplinary culture, to trigger and to facilitate the collaborative activities (*across the departments, with the industry, with the peer institutes and with the research labs*) and also **to serve as a revenue generation mechanism**, it is also proposed that CIDER would facilitate, the offerings of the following academic/professional programs viz.
 - Science/Engineering Practices Certification program with a focus on experiential learning education,
 - Post-Graduate Diploma Programs (PGDP) in the interdisciplinary areas
 - Post-Graduate Student Status Program (PGSSP),
 - Short Term Training Programs in the interdisciplinary areas

In addition, the CIDER trigger the initiation of joint collaborative (inter-departmental, inter-institute) research at the UG-PG-PhD level and joint collaborative MTech programs (with other institutes) of interdisciplinary nature. The interdisciplinary thrust areas are to be identified by the departments themselves.

In addition, though not under the CIDER, it is also proposed to start the new Minor Programs in the interdisciplinary areas, based on the same regulations as for the existing Minor programs at the institute. This initiative, it is hoped, will serve to popularize the inter-disciplinary activity culture at the institute. However, this will not be considered as a CIDER activity per se.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

- (d). the CIDER is proposed to be setup to serve ONLY as a facilitator, a glue that collates and holds together the diverse expertise and laboratory infrastructure available across the departments for facilitating multidisciplinary research. The departments themselves would be eventually owning each activity carried out, proposed as a CIDER activity, here. It is envisaged that only the required administrative support and minimal technical supervisory support would be provided by the CIDER committee, for overall smooth execution of activities, while maintaining the highest academic standards.
- (e). essentially the CIDER activities are proposed to be **self-sustainable i.e. not falling under the traditional ME-GoI sponsored programs**. The activities are aimed to be revenue generating and industry/participation funded (in most cases). Thus, the CIDER activities are aimed to become a major source of contribution to the revenue generation, with minimum support from the institute.
- (f). except for the civil infrastructure, the initial funds in setting up the center and the essential minimum manpower provisioned from the institute pool, all the activities under the CIDER would be managed from the earnings of the Centre.
- (g). lastly, the institute has in place a Research Park, to coordinate institutional activities related to innovation, incubation, entrepreneurship and industrial interaction. Under the Research Park, SVNIT Surat has set up a not-for-profit section-8 company named "Association for Harnessing Innovation and Entrepreneurship (ASHINE)" with an objective to promote entrepreneurial activity on SVNIT campus and commercialization of R&D efforts across all disciplines of Science/Engineering and Technology including Materials, Manufacturing, Energy and Environment. One of the goals of the CIDER would be to generate inputs for the technology startups, thus eventually harboring more of innovation and entrepreneurial activities.
- (h). the fact as mentioned in (e), implies that, all other activities of similar nature (e.g. faculty development programs funded under some Govt. scheme e.g. ATAL, TEQIP, GUJCOST, etc.) shall continue to be run under the aegis of CCE, as in the present.

The CIDER Activities:

Following is the list and a brief abstract of the activities that are proposed to be launched/carried out under the CIDER. The details of these activities are given in the Annexure with this document.

1. Minor Programs at B Tech level – the lowest hanging fruit

As mentioned before, though, the Minor programs in the interdisciplinary areas **are not proposed and meant to an activity under the CIDER**, a mention is made here, to trigger the initiation of such programs – projected as the most feasible activity to start with. The Minor programs in the interdisciplinary areas, with the participation of the departments, as tentatively and initially identified, is shown in the Annexure. These programs would be modeled on the lines of the existing minor programs at the institute with the same rules and regulations; except that these would be in the areas as proposed here. It is proposed to start these programs from AY 2021-22, subject to further approvals.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

2. Self-financed Certification course in Science/Engineering Practices

This program is aimed to instill an experiential, project-based or immersive learning practices and introduce the paradigm shift in the conventional Science/Engineering education. The latent motivation is to equip the faculty members or to let them experiment with science/engineering education practices as pioneered by Olin College of Engineering, Boston, USA (https://www.olin.edu/academics/programs-majors/).

3. Post Graduate Diploma programs (PGDP)

These programs are proposed to be one year, fast paced, **four-quarter post-Graduate Diploma programs** in the niche areas. These programs would be mainly aimed to serve as a means of establishing touch-base with the industry professionals, at the same time allowing the industry professional to acquire expertise in those specialized research areas, that seem to be over the fence with respect to their own expertise.

4. Post Graduate Student Status Program (PGSSP)

Again, a program modeled on the lines of the same offered at IIIT Hyderabad, the PGSSP is aimed to allow a working professional from the industry, acquire expertise in a regular Post-Graduate course of study and earn formal credits, towards studying the course. This venture also is aimed to serve as a means of establishing touch-base with the industry professionals, while yielding revenue for the institute.

5. **Facilitating the multidisciplinary translational research at the BTech, MTech and PhD level.** The ultimate, eventual destination for the CIDER activities – i.e. facilitating the

multidisciplinary translational research at the BTech, MTech and PhD level - is main goal of the CIDER. All other activities are expected to contribute to this goal as a latent effect. The research problems identified and solved under this activity would also serve as inputs to the section-8 company ASHINE at SVNIT.

6. Identification of and offering the 60-hour, 30-hour, 15-hour and 6-hour short term training programs in niche areas.

These programs would serve to allow those working industry professionals, who cannot devote time for pursuing regular course of study or an advanced diploma; and yet acquire the skills in the niche areas. The professional training programs are aimed to be of varying duration and could be offered in flexible slots, including a series of weekend days.

7. Identification of and offering a 50-hr finishing school training programs (FSTP)

The FSTP is aimed for capacity building of the graduates of the other local engineering colleges, with an aim to make the participants more employable.

8. Liaison with the other academic institutes of repute and with the industry to facilitate the research in the focus areas.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Table I: Tentative List of Focus areas:

The focus multi-disciplinary areas of the institute initially identified by the committee are as follows. However, this identification is subject to the subsequent acceptance and consent by the respective DAAC.

Sr	Interdisciplinary Areas	Departments Involved
1	PioSciences /PioMedical Engineering	CHED CHE FED FCED MED COED
1.	Enormy Herverting and Efficiency developments of	
2.	Energy Harvesting and Efficiency, developments of tools and systems for Solar, Thermal and other sources of energy including high storage density battery, solar thermal technologies, novel thermodynamic cycles, thermal storage, high power technologies, materials for energy systems, catalysis, corrosion, Thermo electricity, combustion science and technology, green buildings and smart grids and other electrical and electronic systems for harvesting and distribution of energy.	MED, CHED, EED, All other departments including Sciences
3.	Material Science and Technology	MED, PHY, CHED, CHEM, EED
4.	Artificial Intelligence, Machine Learning	COED, ECED, All other departments including Sciences
5.	The Cyber Physical Systems with applications in Transportation, Communication and Smart Cities, Strategic Materials & Manufacturing, Health & Well- being, including Bio-chem, Bio-medical including the IoT Applications in Smart Cities, Smart Agriculture, Industrial Robotics, Stress and Strain measurements, Environmental monitoring, Healthcare, Surveillance etc.	COED, ECED, AMHD, All other departments including Sciences
6.	Quantum Frontier	PHY, EED, All other departments including Sciences
7.	Technology for Empowered Society in villages/small towns	MED, CED, COED, ECED, EED
8.	Navigation, Computational Fluid Dynamic analysis	MED, CED, PHY
9.	Cyber Security	COED, AMHD, All other departments including Sciences
10.	Power distribution	EED, ECED, MED, CED
11.	IoT based network analysis	EED, ECED, COED, AMHD
12.	DC controllers	EED, All other departments including Sciences
13.	Data Science using Signal processing	COED, ECED, PHY
14.	Remote sensing	COED, CED, PHY, AMHD
15.	Flood analysis and Forecasting	CED, COED, AMHD
16.	Traffic surveillance	ECED, COED, CED, MED, PHY
17.	Geospatial Technology	CED, ECED, COED, MED, PHY
18.	Road safety management	CED, ECED, COED, MED
19.	Power Plant Engineering	EED, MED, COED
20.	Port Engineering	CED, MED, COED

Semantics of Abbreviations:

CHED – Department of Chemical Engineering, CED – Civil Engg, COED – Computer Science and Engg, ECED – Electronics Engg, EED – Electrical, MED – Mechanical Engg, PHY – Physics Department, CHE – Chemistry, AMHD – Maths and Humanities

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Table II :Administrative setup:

CIDER is proposed to be managed by the coordination committee. The committee will develop, administer and monitor all the activities, academics, staff, and financial matters, of the centre:

1.	Chairman (CIDER Committee) – directly reporting to the Deputy Director/Director.
2.	An Associate Dean(R&C) – for CIDER specifically, to be assigned initially itself, due to the
	volume of the initial activities involved in launching the Centre.
3.	The CIDER Committee, as duly constituted, in force for a period of two years.
4.	An Operating Administrative Officer.

The members will be nominated by the Director in consultation with the Dean (R & C) - the Centre would be considered part of the Dean(R&C) office. The Operating Administrative Officer would be from the administrative pool of the institute and shall be appointed/transferred from the other section, as soon as possible.

The academic initiatives under the CIDER, would be initiated by the CIDER committee, recommended by the DAAC of the participating departments, and forwarded by the IAAC for the approval from the Senate.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Sr	Details / Head	Total Amount in Rs
No		lakhs
1.	Space for an Office, Faculty rooms, a Conference room, Private Cloud and Data Centre, High Performance Computing Centre and three seminar rooms of 50, two of 100, and one of 200 seating capacity	Rs 16 Crores
2.	Computers, Laptops, Server, Audio-Visual Equipment in the seminar rooms.	Rs 10 lakhs
3.	Setting up of Private Cloud and Data Center for Big Data Analytics with Cloud Systems (Infra Node, Converged CPU Node, Converged GPU Node, Manager Node), Big Data System (Primary Name Node, Secondary Name Node, Job Tracker Node, Data Node- CPU-CPU, Data Node- CPU-GPU) with Resident Engineer support and warranty for two years.	Rs 3.5 crores.
4.	Setting up High Performance Computing Centre with High Performance Computing CPU Nodes, High Performance Computing Master Node/login Node, High Performance Computing GPU Nodes, High Performance Computing Storage, Primary Communication Network, COOLING AND UPS INFRASTRUCTURE, Accessories and AMC Charges for five years.	Rs 3.5 crores.
5.	Maximum estimated expenditure towards procuring the specialized equipment as would be identified by the departments.	Rs 1 crore
6.	Expenditure towards refurbishing of the existing facilities in the CoEs, in the SIC and other Central units/sections - to be identified by the concerned incharges/departments.	Rs 50 lakhs
7.	Furniture and miscellaneous expenses	Rs 50 lakhs
	Recurring Expenses	
1.	CIDER Officer and a hamal	From institute pool of staff
2.	Technical Support Staff as required.	Would be met from the IRG
3.	Routine expenses towards the maintenance, electricity charges etc.	Would be met from the IRG

Table III :Budgetary Estimates and Infrastructure Requirements:

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Sr	Activity	Number of such	Total 50-min slots per	Total 50-min slots
No	Activity	nrograms/courses	one such	required per year
NO		to be held ner year	program/course per year	required per year
1	Solf financed Cortification			12E0/T) + 1140/D)
1.	Sell-Infanced Certification	one	400(T) + 300(P)	1550(1) + 1140(P)
	course in			
	Science/Engineering			
	Practices			
2.	Post Graduate Diploma	nine	360(T) + 280(P)	3240(T) + 2520(P)
	Program			
3.	Post Graduate Student	thirty courses	3(T) + 2(P)	90(T)+60(P)
	Status Program (PGSSP)			
		- .		
4.	50 hours Finishing School	Iwice	30(1) + 20(P)	60(T) + 40(P)
	Programs for Engg			
	Graduates			
5.	60 hours Short Term	Nine	35(T)+25(P)	315(T) + 225(P)
	Training Programs in			
	Niche Areas			
6.	30 hours Short Term	Nine	20(T) + 10(T)	180(T) + 90(P)
	Training Programs in			
	Niche Areas			
7.	15 hours UltraShort Term	Nine	10(T) + 5(P)	90(T) + 45(P)
	Training Programs For			
	Industry			
8.	6 hour UltraShort Term	Fifty	6(T)	300(T)
	Training Program			
	Total 5	0-Min slots required	d per year on an average	5625(T) + 4120(P)

Table IV : An Illustrative Workload generated due to CIDER activities, at full flow:

Note:

- On an average, this turns out to be 625 50-min slots, in Theory **per year**, **per department** and 458 50-min slots, in Lab **per year**, **per department**.
- On an average, this turns out to be 12 50-min slots, in Theory **per week, per department** and 458 50-min slots, in Lab **per week, per departm**ent.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Sr No	AY	CIDER Activity / Type of Academic Program	Number of such programs to offer in the year of launch
1.	2021-22	One Minor program , that involves participation of each department and in the area as identified by each department on priority	-
2.	2021-22	Facilitating the multidisciplinary translational research at the BTech, MTech and PhD level.	_
3.	2025-26	Self-financed Certification course in Science/Engineering Practices	One
4.	2022-23	Post Graduate Diploma Programs	Five
5.	2022-23	Post Graduate Student Status Programs (PGSSP)	Twenty
6.	2023-24	50 hours Finishing School Programs for Engg Graduates	Twice
7.	2023-24	60 hours Short Term Training Programs in Niche Areas	Nine
8.	2022-23	30 hours Short Term Training Programs in Niche Areas	Nine
9.	2022-23	15 hours UltraShort Term Training Programs For Industry	Eighteen
10.	2022-23	6 hour UltraShort Term Training Program	Eighteen
11.	2021-22	Liaison with the other academic institutes of repute and with the industry to facilitate the research in the focus areas.	-
12.	2022-23	Joint M Tech/M Sc programs between two departments of the institute and/or between two different institutes.	-

Table V : A Suggested Timeline and launch of CIDER activities:

PS: The number shown in this table only emphasize a gradual and vigilant launch of the CIDER activities. Depending on the extent of smooth sailing and warmth of embrace in the community, the number of such program may increase

Credits:

The CIDER Proposal Committee constituted vide E/459 dated 25th Aug 2020 consisting of the following members viz.:

- Prof D C Jinwala (Chairman)
- Prof P A Parikh
- Prof A A Shaikh
- Dr P V Bhale
- Dr Vipul Kheraj

In addition, inputs received in informal discussions with Prof M S Gaur, Director, IIT Jammu; Prof S R Gandhi, Director, SVNIT, Surat; Deputy Director Prof P L Patel, SVNIT, Surat; Prof K S Dasgupta, Director, DA-IICT; Prof Ashoke Sarkar, Former Director, BITS, Pilani & Visiting Professor, IIT Jammu; and Prof Vijayan P., Retired Scientist BARC & Visiting Professor, IIT Jammu; Prof Ashok Khanna, Retired Professor IITK & Visiting Professor, IIT Jammu; Prof Ashok Ahuja, Retired Professor, & Visiting Professor, IIT Jammu; Prof M A Zaveri, Head, COED, SVNIT; and colleagues in CIDER Committee/R&C viz. Dr P V Bhale, Dr Y D Patil, Dr K D Yadav, Dr H B Mehta.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Deliverables:

The deliverables after five years of running the CIDER are projected as follows:

- 1. From each department, there would be at least
 - a. 15% of the UG major projects,
 - b. 15% of the MTech dissertation titles and
 - c. 15% of the PhD research titles

of interdisciplinary nature. That is, these would have Supervisors from more than one disciplines - the research work would be carried out under the Joint Supervision from the faculty members from different departments.

- 2. Of all the courses taught in the odd and even semesters at all the levels (BTech, MTech, PhD) together, at least 10% of courses would be of interdisciplinary nature, besides the Institute electives and the open electives.
- 3. Of all the courses taught in the odd and even semesters at all the levels (BTech, MTech, PhD) together, at least 10% of courses would be taught by the experts from the industry.
- 4. Each department would offer at least four-six courses per department, that can be pursued as the PGSS program courses.
- 5. At any point in time, there should be at least one PG Diploma program offered by a department.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

ANNEXURE

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

I. Minor Programs at B Tech level – *the lowest hanging fruit*:

It is reiterated that the Minor programs per se do not fall within the ambit of the activities of the CIDER. However, the mention of the Minor programs is made here because all the programs mentioned here are interdisciplinary in nature – and that is the only way, they are different from the conventional Minor programs offered at the institute, currently. The minor programs of cross-disciplinary nature, are viewed here, as the first interdisciplinary initiative ,that can be immediately triggered off. This could be the lowest-handing fruit, in this initiative. An initially identified list of the Minor programs to be offered is shown further. However, the following points are to be noted, upfront:

- this list is tentative, only initially identified and not closed.
- further deliberations in the academic departments and with the outside experts as well as the feasibility of offering any program, shall determine which programs exactly are to be offered at any point in time.
- in addition, the scheme and detailed curriculum of each program shall be discussed in the department DAAC and then recommended to the IAAC and the Senate, for further approval. The CIDER Committee would serve as the triggering entity for initiating such activities.
- the existing rules and regulations for the Minor programs at the institute shall be applicable here also, except for the required number of credits to earn a Minor. The latter could be more depending upon the number of courses identified to be necessary to earn a Minor.

(a) BTech(Minor) in Computational Science and Engg (Minimum 16 credits)

- (i) Base department COED
- (ii) Eligible students of BTech(Mech) and BTech(CSE) programs
- (iii) Faculty from Maths, MED and CSE departments

(b) BTech(Minor) in Energy Engineering (Minimum 16 credits)

(i) Base department MED

(ii) Eligible students of BTech(Mech), BTech(EE), BTech(ECED) and BTech(CHED) programs (iii) Faculty from MED, EE, ECED, CHED, PHY, CHEM departments

(c) BTech(Minor) in Energy and Environment Engineering (Minimum 16 credits)

- (i) Base department CED/CHED
- (ii) Eligible students of BTech(CHED), BTech(ME), BTech(CE), BTech(EE), BTech(ECED), programs (iii) Faculty from CE, CHED, MED, EE, ECED, CHED, PHY, CHEM departments

(d) BTech(Minor) in Smart and Sustainable Cities (Minimum 16 credits)

- (i) Base department CED
- (ii) Eligible students of BTech(CSE), BTech(Civil) programs
- (iii) Faculty from Civil, EC, CSE departments

(e) BTech(Minor) in AI & ML (Minimum 16 credits)

- (i) Base department: COED
- (ii) Eligible students of BTech(CSE), BTech(EC), BTech(E) programs OR students from any discipline having done 8 more credits in the courses specified by the CSE.
- (iii) Faculty from CSE, EC, E, and Maths departments

(f) BTech(Minor in Information Security and Privacy) (Minimum 16 credits)

(i) Base department: COED

(ii) Eligible students of BTech(CSE), BTech(EC), BTech(E) programs OR students from any discipline having done 8 more credits in the courses specified by the CSE.(iii) Faculty from CSE, EC, E, and Maths departments

(g) BTech(Minor in Bio Medical Engineering) (Minimum 16 credits)

(i) Base department: ECED

(ii) Eligible students of BTech(CSE), BTech(EC), BTech(E), BTech (CHED) programs OR students from any discipline having done 8 more credits in the courses specified by the EC
(iii) Faculty from EC, E, CHED, CH departments. Faculty from CHED, EC, CHEM and for Biology courses – persons with specific expertise to be inducted as Visiting Faculty/Adjunct Faculty. Tie up with the local Medical college can be explored to be able to offer this program

(h) BTech(Minor in Robotics and Automation) (Minimum 16 credits)

(i) Base department: MED

(ii) Eligible students of BTech(CSE), BTech(M), BTech(E), BTech (EC) programs OR students from any discipline having done 8 more credits in the courses specified by the MED
(iii) Faculty from MED, EC, E, CSE departments

(i) BTech(Minor in Marine and Ocean Engineering) (Minimum 16 credits)

(i) Base department: CED

(ii) Eligible students of BTech(Civil), BTech(Mech), BTech(E), BTech (EC) programs (iii) Faculty from Civil, EC, MED, CSE departments

(j) BTech(Minor in in Atmospheric Sciences) (Minimum 16 credits)

(i) Base department: CED

(ii) Eligible students of BTech(CH), BTech(CE) programs

(iii) Faculty from CED, CHED, CHEM

(k) BTech(Minor in Biological Sciences) (Minimum 16 credits)

(i) Base department: -To be identified-

(ii) Eligible students of BTech(CH), BSc (CHE), BSc(PHY), BTech(E) programs OR students from any discipline having done 8 more credits in the courses specified by the CHED

(iii) Faculty from CHED, EC, CHEM and for Biology courses – persons with specific expertise to be inducted as Visiting Faculty/Adjunct Faculty. Tie up with the local Medical college can be explored to be able to offer this program

(I) BTech(Minor in Materials Engineering) (Minimum 16 credits)

- (i) Base department: MED
- (ii) Eligible students of BTech(ME), BTech(CHED) programs
- (iii) Faculty from MED, PHY, CHED departments

In all the above cases, the CIDER committee OR the concerned department itself may propose to the IAAC, through the CIDER, that a student **from specific other discipline** or **all other disciplines** may be offered admission to a minor program if he/she has required number of 8 or more credits in the courses specified by the base department.

Semantics of Abbreviations:

CHED – Department of Chemical Engineering, CED – Civil Engg, COED – Computer Science and Engg, ECED – Electronics Engg, EED – Electrical, MED – Mechanical Engg, PHY – Physics Department, CHE – Chemistry, AMHD – Maths and Humanities

II. Self-financed Certification course in Science and Engineering Practices .

This program typically would focus on experiential learning i.e. the students would learn by "doing something" instead of learning the classical way. The motivation comes from Kolb's (1984) cycle of learning with the focus on experiential learning, that is an integration of knowledge, activity, and reflection. This type of shift in Science/Engineering Education is pioneered by Olin College of Engineering, Boston, USA (https://www.olin.edu/academics/programs-majors/).

Drifting apart from the conventional approach to imparting Science/Engineering Education, the students are expected to start science/engineering practices right away. That is, it is proposed that

- the students would have with three courses in the first semester that provide hands-on experiences in several areas of Science/Engineering.
- in their first year, students also begin to explore the arts, humanities and social sciences as well as entrepreneurship, and are able to directly integrate and apply this learning in all areas of the curriculum. Every student completes an "AHS" (Arts, Humanities and Social Science) foundation course in their first semester in order to build strong skills in communication and contextual awareness and may continue to develop these skills through advanced self-designed AHS study.
- in addition, throughout the curriculum, the students stay engaged by working on projects connected to real-world challenges.
- all students in this program would be expected to also take an introductory entrepreneurship course in their first year, where they begin to develop an entrepreneurial mindset and learn the tools that are essential to realizing true and sustainable positive change. This course would be offered in liaison with the ASHINE cell at SVNIT.
- by their final year, it is expected that the students would be ready to solve real problems for companies and communities. The students would be expected to apply their four years of classroom knowledge to solve realistic Science/Engineering problems, through the final year industry-level team projects and professional interaction. This exposure would be aimed to equip future engineers with important design, communication and presentation experience.
- One of the latent intent of the program is to enable the faculty members experience and adapt experiential learning the new paradigm of Science/Engineering education.

In this eight-semester certification course in Science/Engineering Practices, the students may even be allowed and counseled to design their own degree program by choosing a set of classes that, along with the college-wide requirements, make up a coherent plan of study. The popular areas of concentration could be BioEngineering, Computing, Design and Robotics. The students would be charged based on a fee that is per-credit based i.e. Rs 2500/- per credit. The minimum number of credits are supposed to be 166, with about 22 or 23 credits per semesters upto the pre-final year and 16 credits per semester in the final year. The program is supposed to be run as a full-time regular program of the institute, except for the facts that it would be a self-financed, certification type of program. Once the CIDER proposal is approved by the Senate and the BoG, the detailed scheme, syllabus, the mode of admission, and other details shall be submitted to the Senate for

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

further approval. It is planned to launch the same from the AY 2022-23.

III. Post Graduate Diploma programs (PGDP): One year, fast paced, four-quarter post-Graduate Diploma programs in the following niche areas shown below. The key consideration when starting these programs would be the fact that these one-year programs would be viewed from a perspective of revenue generation and increasing liaison with the industry.

For each of the PG Diploma course, the following steps are required to be followed:

- 1. The CIDER committee identifies and proposes to the DAAC of the participating departments, a particular PG Diploma course to be offered.
- 2. The respective DAACs, or their representatives and the concerned representative members of the CIDER committee meet together to prepare a form based on a defined template. The form then, is submitted to the CIDER to be further submitted to the IAAC for further recommendation to the Senate for approval and be implemented. A sample form filled in with the details for the PG Diploma Course in Cyber Security is shown here, as an illustration (the same is yet to be formally recommended by the DAAC of the COED).

Sr	Head Detail	Head Detail Head Value				
No						
1.	Name of the Diploma	Post Graduate Diploma in Cyber Security				
2.	Mode Of Learning	Live Online and Offline				
3.	Course Duration	12 months				
4.	Total number of Minimum Credits	56				
	to be earned					
5.	Fees to be paid per credit in Rs	RS 5000/- per credit.				
6.	Base Department of the course	COED				
7.	Program Abstract i.e. Recognition: With the rapid proliferation of the IT and Web-					
	enabled services in every aspect our lives, the vulnerability to cyber attacks is on the					
	rise. It is therefore necessary for every Professional to have a solid foundation in the					
	aspects relating to the Information and Web Security. The four quarter PG diploma in					
	Cyber Security is aimed to provide a	comprehensive foundation of core cyber security				
	concepts and a practical view into h	now organizations of various sizes approach and				
	implement cyber security controls.	It aims to bridge the gap between foundational				
	concepts and application of cyber se	curity to current technology trends such as Cloud				
	Computing, Internet of Things, Robo	tic Process Automation, Artificial Intelligence and				
	Machine Learning.	r				
8.	Eligibility	A Graduate Degree in Engineering OR a Post-				
	/*Please do not edit*/	Graduate Degree in Science from a recognized				
		university/institute, with minimum CGPA of 7 or				
		equivalent.				
9.	Admission Selection requirement	Based on the merit list prepared. However,				
	/*Please do not edit*/	subject to securing a minimum of 60% in the				
		qualifying entrance examination (the syllabus				
		for which would be separately notified) as well				
		as minimum of 60% in the admission test in				
		Computer Programming skills. Both the tests to				

TABLE – I: PG Diploma Program Template Form (an illustrative filled-in)

				be	conducted by an	admission	commit	tee
				со	nstituted for the A	dmissions	to the	PG
				Di	ploma Program.			
10.	Software/Lab Tools c	overed		С,	Python, Tensorflow, D	jango, and	more	
11.	Scheme of the Progra	am						
	Quarter – I	Slots/W	Tota	al	Quarter – II	Slots/W	Total	
	(Jan-Mar)		Cred	its	(Apr-Jun)		Credits	
-	Foundation & Bridge	3-0-0	3		Foundations of Cyber	3-0-2	4	-
	Course Topics	500	5		Security	502	-	
-	Foundations of Machine	3-0-2	4		Cyber Threat	3-0-0	3	-
	Learning				Intelligence			
	Operating System	3-0-2	4		Host and Network	3-0-2	4	
-					Security			_
	Computer Networks	3-0-2	4		Penetration Testing	3-0-2	4	
					and Incident Response			1
			1				-	-
	Quarter – III	Slots/W	Tota	al ••	Quarter – IV	Slots/W	Total	
	(Jul-Sep)		Cred	its	(Oct-Dec)		Credits	
	Applications Security	3-0-2	4		Malware Analysis	3-0-2	4	
	Digital Forensics 3-0- Principles & Practice		3		Legal, Ethical and Professional Practice	3-0-0	3	
	Project/Dissertation - I 0-0-6 6				Project/Dissertation - II	0-0-6	6	
12.	Project/Dissertation -1 0-0-6 6 Project/Dissertation -11 0-0-6 6 2.2. Evaluation and Examination Scheme: /*Please do not edit*/ • The basic pattern of examination shall remain the same across the different PG Diplomas offered and shall be as follows: • The total marks for evaluation shall be 100-0-50 for a course with the credit scheme of 3-0-1 i.e. 50-min slot weightage of 3-0-2. • The evaluation shall be continuous evaluation centric with the weightage of 70 percentage towards the continuous evaluation and 30 percentage towards the end-quarter evaluation. • Theory Continuous evaluation: • In all 8 quizzes/class tests consisting of the MCQs/Short Questions conducted per course per quarter, each at least 10 questions. The weightage of the quizzes in the continuous evaluation component shall be 20 percentage. • There will be one term project given per course per quarter, in which the student will have to develop some theoretical model, design and implement a new software, solve a major problem leading to independent deductions justified with appropriate detailed analysis etc. The weightage of the term project in the continuous evaluation component shall be 20 percentage. • There will be a mid-quarter examination, conducted in the sixth week from the first five weeks of the quarter, consisting of the topics covered till the first five weeks of the quarter – that shall be roughly 50 % of the total syllabus of a course. The weightage of the mid-quarter examination in the continuous evaluation component shall be 20 percentage.							

	 The end-quarter examination shall be conducted in the 11th week of the quarter with one course examination conducted per day. The syllabus for the end-quarter examination shall be decided and announced by the course teacher in the first week of the quarter. The weightage of this examination shall be 30%. Laboratory evaluation: The evaluation for the laboratory component shall be of 50 marks. It shall be continuous evaluation, done throughout the laboratory slots in the quarter. 		
13.	Projects/Dissertation /*Please do not edit*/	Two projects to be carried out – one each in the 3 rd and the 4 th semesters	
14.	Job Assistance /*Please do not edit*/	Through the SVNIT Training and Placement Section	
15.	Hands-on Learning	The highly interactive online content – aimed to provide a mix of live classes experts both from SVNIT and from the industry.	
16.	Alumni Status	The Program being offered for the first time – to be populated later.	
17.	Program Advisor/Counselor	TBD	
18.	Whether outside institute experts required to teach a course ?	Y/N	
19.	The names of Experts and their affiliation if the answer is a "Y", in Sr no 17.		
20.	The names of the faculty members offering/teaching each course		
21.	The regular i.e. the institute teaching load of the faculty members at Sr no 19.		
22.	Any other comments		

- 3. Each program is estimated to require an engagement of about 360 theory slots each of 50 minutes and 280 laboratory slots each of 50 minutes. These slots may be spread more over the evening hours and over the weekend in order to suit the needs of the Industry.
- 4. The student offered admission in the program has to attend the classes within week days (Mon Sat), if so scheduled. This is a full-time program and hence the admitee to any PGDP shall not be allowed to work elsewhere. Attendance for the classes is mandatory.
- 5. An institute faculty member involved in teaching any of courses in any of the **PGDP** program courses shall not be involved **in offering/teaching more than four such courses at PGDP** per year.
- 6. In addition, the offering of/teaching of courses in PGDP shall be in addition to the regular teaching load of an institute faculty member. Moreover, the offering of/teaching of a course at PGDP, shall not be allowed to be used as a pretext to even adjust the regular teaching/administrative/research/institute services assignments to an institute faculty or an institute employee.
- 7. The respective DAAC of the department to which an institute faculty member is affiliated to, shall ensure all the requirements as mentioned here, listed out and filled-in the form

in Table I, shall duly recommend to the CIDER for being further recommended to the IAAC for final approval.

- 8. It is estimate that with two PG Diploma programs per discipline, the total number of such programs offered per year would be 18 per year.
- 9. The actual list of the PG Diploma Programs to be offered shall be arrived at later, in consultation with the respective DAAC and the CIDER Committee. However, a tentative list identified based on the discussions in the Perspective Plan committee meetings, is as follows:
 - PG Diploma in Cyber Security
 - PG Diploma in Data Sciences
 - PG Diploma in Urban Development Management (i.e. Smart Cities focus)
 - PG Diploma in Infrastructure
 Development
 - PG Diploma in BioSciences
 Engineering
 - PG Diploma in Energy Systems
 - PG Diploma in Industrial
 Automation

- PG Diploma in Nanomaterials.
- PG Diploma in Manufacturing Management
- PG Diploma in Analytical Techniques
- PG Diploma in Pharmaceutical Sciences
- PG Diploma in Nanoscience/Nanotechnology
- PG Diploma in E Mobility
- PG Diploma in Energy Conservation
 Management and Audit
- PG Diploma in Power Plant Engineering

The above areas will be discussed in the department DAAC and the inputs given to the CIDER committee member latest by 15th June 2021, with respect to what would be the priority of the department and which other department, the concerned department would be partnering with for a particular program.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

IV. Post Graduate Student Status Program (PGSSP) : This program i.e. Post Graduate Student Status Program (PGSSP) is meant for the Working professionals who are employed in Surat city and around and have a desire to pursue higher studies on a part-time basis Admissions are open in Monsoon and Spring semesters every year. The main motivation of this program is to strike an interface with the industry – to create a situation where in the industry experts are able to strengthen their theoretical foundation whereas the institute faculty is able to get insight into the existing problems in the industry when the industry personnel formally enroll in the courses offered at the institute. It is modeled on a similar program being offered currently at IIIT Hyderabad.

The offering of the PGSS program shall be regulated by the following:

- 1. A candidate is required to acquire the post-graduate status before being allowed to take a course under the **PGSS program**.
- 2. Any professional willing to undertake any PGSSP course, shall apply to acquire such status first, through the appropriate form, designed for the purpose.
- 3. The post-graduate status shall be accorded to a professional on the basis of his/her academic and experience record, as submitted along with the copies of the testimonials in the application form.
- 4. Once someone is awarded the PG status, he/she can take a maximum of two courses at the institute every semester. This provides him/her with the opportunity to acquire new knowledge in chosen areas without committing to a formal program.
- 5. The courses taken under the PGSSP scheme would not count towards a formal degree from the institute.
- 6. The fees for a course are proposed to be Rs 7500/- per credit plus Rs 30000/- per semester to maintain student status.
- 7. **Pre-qualifying criteria:** The basic requirement any professional applying to this program is that the applicant **should be a resident of Surat city and around.** In addition, the applicant the applicant must be a working professional with either of following degrees:
 - a. a Bachelors or Master's degree in Engineering/Technology (B.E./ B.Tech. from a recognized institute/university
 - b. a ME/MTech, a Master of Computer Applications (MCA), or a M.Sc. / M. Sc. (Information Technology) degree from a recognized institute/university
- 8. In addition, the applicant will have to produce a No Objection Certificate (as per the NOC TEMPLATE, shown elsewhere) from his/her employer to attend the classes in the office hours, if so offered. The candidate has to attend the classes within week days (Mon Sat). The classes for the courses selected will be conducted twice or thrice a week. Attendance for the classes is mandatory. The candidates should take minimum of one course and maximum of two courses in a semester.
- 10. An institute faculty member involved in teaching any of courses in any of the **PGSS** program courses shall not be involved **in offering/teaching more than two such courses at PGSS** per year.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

- 11. In addition, the offering of/teaching of courses in PGSS shall be in addition to the regular teaching load of an institute faculty member. Moreover, the offering of/teaching of a course at **PGSS**, shall not be allowed to be used as a pretext to even adjust the regular teaching/administrative/research/institute services assignments to an institute faculty or an institute employee.
- 12. The respective DAAC of the department to which an institute faculty member is affiliated to, shall ensure all the requirements as mentioned here, listed out and filled-in the form in Table I, shall duly recommend to the CIDER for being further recommended to the IAAC for final approval.
- 13. PGSSP students may register for any course in the institute as long as they meet the course prerequisites and subject to them clearing the qualifying criteria as approved by the IAAC.
- 14. The admission criteria shall be decided by the respective DAAC and approved in the IAAC, as would be the list of the courses, offered under the scheme.
- 15. Each department would be required to submit a template based on an illustrative form filled in and shown as below:

Name of the Department		
Sr No	Details	
1	Name of the Course and scheme	
2	No of intended Participants in the course	
3	Name of the industry(ies) targeted	
4	Offered as a Regular UG/PG Course Y/N ?	
5	Slot when to be scheduled?	
6	Prerequisite Courses to have studied	
7	Admission Qualifying Criteria	
8	Names of the faculty members involved in teaching the course and their existing teaching load	
9	The number of PGSSP courses offered by the faculty members as in Sr no 8.	

TABLE – II: Form for PGSSP List of Courses on Offer

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

V. Facilitate the multidisciplinary translational research at different levels – Faculty, and students (Ph.D., Master's, Bachelor's level) in the focus areas. This scheme must open up the vistas for offering PhD research problems and MTech dissertation problems of interdisciplinary nature, jointly supervised by the faculty members from more than one department.

Each department would be required to fill-in a form based on the template as shown for an illustrative form filled-in and shown below:

-				
	Name of the Department			
Sr	Niche Area of	Specific Research	Intended Mentor Faculty	If outside
No	Research	Problem	members in the	organization and/or
			institute/outside organization	Industry experts,
			and/or Industry experts	MoU signed ?
1				
2				
3				
4				
5				
6				
7				

<u>TABLE – III: Form for Probable Joint Research Problem Titles with Collaborative</u> <u>Department</u>

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

VI. Identification of and offering the short term training programs in niche areas: The proposed CIDER Centre will also offer and facilitate short term training programs in problem specific and niche areas, to the industry. In addition to the personnel from the industry, only the working professionals or the Faculty members of the Colleges would be considered as eligible to participate in such courses. The titles of the training programs shall be identified by the CIDER Committee inviting suggestions from the interested faculty members in general.

These training programs can be of various durations as shown below

- 60 hours/ten working days/five pairs of Saturdays-Sundays OR
- 30 hours/five working days/two pairs of Saturdays-Sundays plus one Sat-Sun OR
- 15 hours/2 and a half working days/Fri-Sat-Sun(halfday) OR
- 6 hour/One working day/Saturday

The offering of any of the training programs here, shall be regulated by the following:

- **1.** Eligibility: The basic eligibility for applying to this program is that the applicant should produce No Objection Certificate (NOC TEMPLATE) from the employer to attend the training program. Attendance for the classes is mandatory.
- The fees for the training program are proposed to be Rs 75000/- (for 60-hour program), Rs 50000/- (for 30-hour program), Rs 30000/- (for 15-hour program), Rs 7500/- (for 6-hour program).
- **3.** Admission to a training program on offer, shall be based on the academic and professional record of an applicant who has either of following degrees:
 - a Bachelor's or Master's degree in Engineering/Technology (B.E./ B.Tech. or ME/M.Tech.), a Master of Computer Applications (MCA), or a M.Sc. / M. Sc. (Information Technology)
- **4.** In addition, the applicant will have to produce a No Objection Certificate (as per the NOC TEMPLATE, shown elsewhere) from his/her employer to **attend the classes in the office hours, if so offered**. Attendance for the classes is mandatory.
- 5. The admission criteria shall be decided by the respective DAAC and approved in the IAAC.
- **6.** A candidate would be selected to participate in a training program provided he/she satisfies the prerequisites and subject to the candidate clearing the qualifying criteria as approved by the IAAC.
- **7.** An institute faculty member involved in teaching in any of the training program shall not be involved in offering/teaching in more than two such programs at any point in time.
- 8. In addition, the offering of/teaching of courses/lectures in any training program shall be in addition to the regular teaching load of an institute faculty member. Moreover, the offering of/teaching in any training program, shall not be allowed to be used as a pretext to even adjust the regular teaching/administrative/research/institute services assignments to an institute faculty or an institute employee.
- **9.** The respective DAAC of the department to which an institute faculty member is affiliated to, shall ensure all the requirements as mentioned here, listed out and filled-in the form

in Table IV, shall duly recommend to the CIDER for being further recommended to the IAAC for final approval.

- **10.** The admission criteria shall be decided by the respective DAAC and approved in the IAAC, as would be the list of the courses, offered under the scheme.
- **11.** It is estimated that initially one a few departments may offer such a program, but eventually each department may offer five to ten such programs per year.
- **12.** Each department would be required to submit a template based on an illustrative form filled in and shown as below:

Name of the Department		
Sr No	Details	
1	Title of the program	
2	No of hours of the program	
2	No of intended Participants in the course	
3	Name of the industry(ies) targeted, if so	
4	Slot when to be scheduled?	
6	Admission Qualifying Criteria	
7	Indicative topics to be covered	
8	Detailed schedule to be attached	
9	Prerequisite Courses to have studied	
10	Names of the faculty members involved in teaching the course and their existing teaching load	
11	The number of such other training program offered by the faculty members as in Sr no .	
12	Any other remark	

TABLE – IV: Form for Interdisciplinary-nature Short Term Training Program On Offer

Г

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

VII. Identification of and offering a 50-hr finishing school training programs (FSTP) for the fresh graduates of the other Engineering institutes in the region: This is proposed to be an employability enhancement program for imparting training on specific skill development for students of Higher and Technical Education to make them Industry-ready. The total number of training hours for students in a particular discipline shall be limited to 50 hours. The program shall be offered in the existing strength of the institute i.e. in the Civil, Chemical, Computer, Electrical, Electronics, Mechanical Engineering disciplines.

The offering of the program shall be regulated by the following:

- 1. Eligibility: The basic eligibility for applying to an FST programs is that the applicant **should be an unemployed Graduate of any Engineering institute/university.**
- 2. The total number of engagements of the program shall be 50 hours i.e. 8 working days, as per the convenience of the department offering it.
- 3. The fees for the FST program are proposed to be Rs 50000/- per student.
- 4. The Admission to an FSTP on offer, shall be based on the academic and professional record of an applicant who an appropriate Bachelor's degree in the branch of Engineering to which he/she is seeking admission to an FSTP program.
- 5. The admission criteria shall be decided by the respective DAAC and approved in the IAAC. A candidate would be selected to participate in a FSTP provided he/she satisfies the prerequisites and subject to the candidate clearing the qualifying criteria as approved by the IAAC.
- 6. It is estimated that the each department may offer an FSTP, maximum twice in a year.
- 7. An institute faculty member involved in teaching in an FSTP shall not be involved in offering/teaching in more than 10 hours per FSTP, at any point in time.
- 8. In addition, the offering of/teaching of courses/lectures in an FST program shall be in addition to the regular teaching load of an institute faculty member. Moreover, the offering of/teaching in any training program, shall not be allowed to be used as a pretext to even adjust the regular teaching/administrative/research/institute services assignments to an institute faculty or an institute employee.
- 9. The respective DAAC of the department to which an institute faculty member is affiliated to, shall ensure all the requirements as mentioned here, listed out and filled-in the form in Table V, shall duly recommend to the CIDER for being further recommended to the IAAC for final approval.

TABLE – V: 50 hour Finishing School Term Training Program On Offer Template

Name of the Department		
Sr	Details	
No		
1	Title of the program	
2	No of hours of the program	
2	No of intended Participants in the course	
4	Slot when to be scheduled?	

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

6	Admission Qualifying Criteria	
7	Indicative topics to be covered	
8	Detailed schedule	
10	Names of the faculty members involved in teaching the course and their existing teaching load	
11	The number of such other FSTP offered by the faculty members as in Sr no 10	
12	Any other remark	

- VIII. Liaison with the other academic institutes of repute and with the industry to facilitate the research in the focus areas. This initiative is to impart short term training programs to the industry personnel in the niche areas. The goal of this initiative to two fold to be able to establish a tie-up with the industry personnel and to generate revenue for the institute. It also serves to help a faculty member relate the theoretical knowledge with the demands of the industry to lend technical completeness to the skill-set of a faculty member.
- IX. Joint M Tech/M Sc programs between two departments of the institute and/or between two different institutes. The fruits of offering an interdisciplinary nature of the program may not fully reaped, if a program is is offered from a single department. Therefore, the CIDER would provide a framework or a platform to develop and offer such programs. The faculty members from various departments can jointly develop courses in these programs that will be available to the students across the disciplines with problem solving approaches.

***** ***** **** ***

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Frequently Asked Comments and Responses to the Questions from the Senate members:

Q1: We should include interdisciplinary courses in collaboration with various research laboratories, industries and international academic institutions with an exchange programme for faculty and students - may be supported under the CIDER umbrella.

A1: The interdisciplinary courses, in collaboration with various research laboratories, industries and international academic institutions, would surely be offered under the CIDER. However, the respective DAAC will have to suggest the names of the courses and the names of the research laboratories, industries and international academic institutions with which the same can be initiated.

Q2: If any foreign industry person wants to involve in teaching in CIDER, how are the possibilities. Any mechanism devised for that ?

A2: We already have a scheme of appointing Adjunct Professor at the institute. We can use it for the purpose. It is also clarified that for only the PGSSP program, it was proposed that this should be in physical mode. Rest all the programs, the experts could be online also - because otherwise we will not be able to assign teaching of the some of the research area to some industry expert or to some other faculty from some other institute. And PGSSP program typically would have our regular courses at the MTech level offered to the industry professionals to earn credits and accrue a credit bank.

Q3:

(a) Experiential learning is going to be resource intensive. Where is the provision of Tinker lab? Provide a clear view of how the additional laboratory resources required would be put in place.

A3(a): Currently, there is no provision of the Tinker lab or the Breaker lab in the proposal. However, the CIDER activities being self-sustainable, it is envisaged that the funds generated from the CIDER would be pumped in to develop appropriate such need-based laboratory infrastructure, in future.

(b) What about the employability of the candidates in the Certification Course in Science/Engineering Practices?

A3(b): The proposed Certification course in Science/Engineering Practices is intended to be designed on the theme of Experiential or Immersive or Product-design based learning. Any such program will have more of the hands on learning, focusing on imparting the product design as well as development skills to the participant. Hence, although there cannot be concrete assurances that can be given upfront about the employability of a student graduating through this program; it is not optimistic to reason that their employability would be definitely high.

(c) Is there any scope of the research linked to product development?

A3(c): Indeed there is. As has been mentioned in the proposal, one of the motivations for proposing this center, is to be able to provide inputs to the startups in the incubation cell of SVNIT viz. ASHINE. Any product or a startup here would thrive only if built on research and innovation, not otherwise.

- (d) BITS, Pilani has a program called WILP and is extremely successful. Imitate the features of that. A3(d). This aspect would kept in the considerations.
- (e) How would the students of PhD be allowed to do interdisciplinary PhD?

A3(e). The CIDER by itself is not proposed here, at least as of now, to offer any MTech/PhD programs on its own – which is something that is observed at SIRe, IIT Delhi. Initially, CIDER would

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

facilitate offering of such programs across the departments, by bringing together the respective people from the respective departments and completing the required formalities for commencing such a program. Having said that, however, it is foreseen that in future, when the CIDER activities hold their ground, it can be considered to let CIDER itself offer the MTech/PhD programs in those overlapping areas, in which, then at that point in time, there is a need to offer such programs.

(f) Look at the rules and regulations of the SIRe, IIT Delhi.

A3(f). Yes, please.

Q4: Experiential Learning – without a degree or a diploma being given, how would this program be attractive to the candidates ?

A4: It is envisaged that the certificate from an institute like an NIT would be equally cherished as compared to a degree or diploma. In addition, the underlying central theme of the Experiential learning-based Certification program in Science/Engineering Practices is to develop skills-based manpower with focus on product-based design on one hand and on hands-on on the other. A product of such a program would be valued more for his/her skills than certificates, it is assumed.

Q5: Look up the early career research program. Would the PhD students be allowed to earn the credits for putting some part of their research in the product form (i.e. engineering a product, rather than doing some fundamental research and the design) towards their PhD ?

A5: Yes, this option must be made available to the students – although the eventual outcome would be dependent on the resolutions adopted in the respective DAACs.

Q6: Align the Minor programs and the PGDP areas. Target to ensure that after dribbling with the Minor programs and gaining confidence, the same must evolve into interdisciplinary MTech programs

A6: This has to be one of the deliverables eventually.

Q7: Add one more program that is titled as "Customized Professional Training for the Industry" with an option wherein the faculty may go into an industry, stay on their campus and take classes; on rotation basis. Target such willing industries.

A7: This is incorporated in the revised document.

Q8: Include Skills development in the interdisciplinary areas as an option – for the Diploma Holders. The training can be imparted with the help of technical support staff. Collaborate with a Diploma college if need be.

A8: The current strength of the technical supporting staff at the institute perhaps precludes this possibility.
Q9: Include the component of Automation and Robotics of handling the remote operable equipment – one that you would find at a Nuclear reactor site.

A9: Noted.

Q10: Robotics and Automation to be renamed on the lines of the same at IIT K. Check with their website.

A10: Noted.

Q11: Include "Polymers" in the Materials Engineering OR in Biomedical Engineering. The biomedical applications of the polymers. The biodegradability makes them useful in the latter. Because of many implants now using polymer, its knowledge would be useful. As also the polymer waste disposal is a serious concern. Address it in these Minors or Diploma.

Page 27 of 33

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

A11: Noted

Q12: Include Mechanical Engineering discipline in Bio Medical Engineering programs. This is because of the knowledge required for the Development of Implantable Medical Devices.

A12: Noted

Q13: Collaborate with a local Medical College for Bio Medical Engineering.

A13: Noted

Q14: Analytical Chemistry is very much required by the industry. So, develop a Customized PG Diploma in Analytical Chemistry that is programmed for a specific Industry in discussion with the industry. Design courses such that the joint expertise of Senior knowledgeable persons in the Industry and the Senior faculty at the institute drive the course. Train your own junior/middle level faculty also and then let such program sustain for other industries.

A14: Noted.

Q15: Marine Engineering to be modeled on the lines of one such program offered at IITKGP.

A15: Noted

Q16: Rename CIDR as CIDER – to include Education – since that is part of the activities of the Center. *A16:* Proposed the change.

Q17: Is CIDER supposed to be a Training Centre for academic programs or a Research Centre ?

A17: The CIDER is expected to pioneer the interdisciplinary research, fundamentally and essentially. However, two aspects that motivated to include the education/training initiatives also, under the CIDER are as follows: (a) first, there is absolutely need to create a WIN-WIN scenario as far as relationship with the industry is to be nurtured & progressed. That is, it is essential to create an eco-system in which, the industry personnel could extend their wisdom of the live problem definitions to the academicians. The theoretical foundations of the academicians could be fruitfully applied to help solve those. At the same time, the academicians can help the industry personnel sharpen their knowledge in those newly developing. vistas of technology, where their day-to-day involvement in the industry, does not permit them, to devote their time and attention to self-study and self-acquire the same. The latter aspect could be fulfilled by offering to the industry personnel, the training courses of different flavors in terms of the required engagement in terms of time and effort – thus enabling them to enrich their resume and skills. Such training initiatives, as a latent side-effect, allows the two communities to come closer, acclimatize with each others' expertise and needs; thus increasing the probabilities of a long lasting relationship. (b) second, such an initiative also enables the institute to develop and capacity-build, the manpower in the niche areas; that could be further pumped into the system to strengthen the system quantitatively.

Q18: Wouldn't the additional workload due to CIDER activities eat away the research and teaching preparation time of the institute faculty members ?

A18: Any quality activity would demand time and efforts. Yes, so CIDER activities also would demand time and efforts from the stakeholders. However, the extent of the involvement of each faculty member could be regulated to ensure no compromise on the regular teaching, research and institute services. In addition, the expertise from the industry would be encouraged to be availed to reduce the share of the additional workload on the institute manpower resources.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Q19: Is the revenue generated from the proposed activities anywhere near significant ? Any rough estimate ?

A19: Initially, it would not be wise to juxtapose the manpower investments into the CIDER against the revenue generation. However, in one rough estimate, it was ascertained that on a reasonable number of conduction of the activities as shown in "Table IV : An Illustrative Workload generated due to CIDER activities, at full flow", on page 8, approximately Rs 10 crores of the funds could be generated per annum from the CIDER education initiatives, after deducting all the expenses. This allow the center to be not only self-sustainable but also as a revenue generation initiative.

Q20: Would CIDR training and academic activities get enough participation?

A20: Unless, actually experimented with, any answer viz. positive or negative could be a speculation. *Hence, it needs to be on hands-on, to answer this question.*

Q21: Would Certification course in Engineering not conflict with the regular BTech programs?

A21: Both the programs viz. the regular BTech degrees and the certification program, at least as of now, can be viewed as serving two different goals. One yielding a recognized/reputed degree from an NIT that can be used as a launching pad for enriching one's resume; whereas the other could be viewed as a skills development training program, that equips one, with the ability to straightway attack, the real-world technical/managerial problems, without the need of any further apprenticeship or training.

Q22: Why is there a perceived distinction between the Science and Engineering in the CIDER activities ?

A22: Precluding the Minor programs, the Center for Interdisciplinary research is for shelving the silos of the disciplines; notwithstanding Science and/or Engineering. Hence, such perception, as in the question, is no more than a mirage – it simply does not exist. However, as is mentioned in the document itself, the Minor programs are not CIDER activities per se; this document only proposes the Minor programs in the overlapping disciplines, with a view to kickstart the interdisciplinary activities. The applicability of the existing rules and regulations for such programs prevails.

Q23: CCE and CIDER both will become centers for conducting STTP as per the proposed doc/presentation in the senate. In my opinion, we must be clear in defining boundaries with proper advisory in final guidelines of CIDER so that confusion about which STTP can be conducted in CIDER and which in CCE should be avoided OR CCE can be merged (discussion with institute authority may require) as data will be available at two centers.

A23: Page 3, item (h) under the section "Scope of CIDER activities" mentions the following viz. "all other activities of similar nature (e.g. faculty development programs funded under some Govt. scheme e.g. ATAL, TEQIP, GUJCOST, etc.) shall continue to be run under the aegis of CEC, as in the present."

Q24: NITSER Act, 2012 do include (but not limited to) besides Engineering, the fields Science, Management and Arts. Hence, instead of using the words/phrases like "Engineering", Engineering/Sciences", "B.Tech./M.Sc./M.Tech" etc which are discipline specific, we should be using generic phrases like "education", "disciplines", "degrees" etc. This allow us to create a broader umbrella of CIDR wherein all the faculty can participate wholeheartedly.

A24: The institute authorities may suggest the way to modify the document to accommodate this view, if need be.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Q25: I propose to avoid using the names of the proposed programs. As I understand, the proposal placed before the senate was to set up CIDER, and in order to keep it open ended center (wherein other departments -when the clarity is received) other departments and especially the disciplines which are not at all has a representation anywhere (like Humanities, management and future disciplines).

A25: The institute authorities may suggest the way to modify the document to accommodate this view., if need be.

Q26: Minor degree provision may also be extended to MSc programs (this is placed here as I have seen something similar in the CIDR proposal). I do not understand the convenient reluctance to make a mention about the science programs though they have brought equivalent (if not better) laurels to the institute in terms of research, projects, patents etc.

A26: The answer to this question is given under the Question 22. However, it is reiterated and reemphasized that the term interdisciplinary itself advocates crossing the disciplines, without restricting to compartments. The only aspect to be taken care of f - as is prevalent in all the reputed educational institutes worldwide – is to ensure compliance with the pre-requisites, required to take up any non-native academic program. However, it is the respective departmental DAACs, who are best suited to take care of the same.

Q27: Major is basically the department one gets allotted after the seat allocation procedure is over. A minor, on the other hand, is a scaled-down version of the courses provided by a different department. In some IITs if one completes 30 credits in YY department while pursuing a BTech in XX department, then the final transcript will read "BTech in XX with Minor in YY." By the way our Proposal document says "the existing rules and regulations for the Minor programs at the institute shall be applicable here also, except for the required number of credits to earn a Minor." In this context, we need to see the existing rules and regulations for the Minor programs at Institute.

(a) How will the Minor programs in CIDER be different? I mean how the marksheet or degree will take care of this?

Ans. The MINOR programs in the CIDER are not actually CIDER activities per se. IT is reiterated that these are the Minor programs only in those areas that require the basic knowledge of two/more overlapping departments and that imparts education in the areas overlapping departments. The marksheet or the degree would make a mention of the Minor degree that a candidate has earned.

(b) This will need some scheme alteration?

Ans. If offering of a Minor in Computer Science and Engineering to a Civil Engineering student does not require any alteration in the existing scheme, the Minor programs proposed here also must not require any alteration. However, the required number of credits to complete a Minor in an interdisciplinary areas may require more credits to be completed – since not only the basic prerequisite courses are to be studied, but probably a few advanced courses also would be required to be pursued. However, these issues can best be decided by the respective DAACs that jointly would offer a Minor program.

(c) Will it have some eligibility criteria for students opting to certain Minor? What will be the ceiling?

Ans. Yes, indeed. The ceiling could best be decided by the DAACs jointly. That is, the CIDER itself does not have the expertise Smart and Sustainable Cities Minor. This can best be prescribed by the DAACs of Civil Engg. and the CSE departments.

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

(d) Do we expect to start these programs from this year? Once the courses are floated what procedure students will have to do? From which year? Do they need to do pre-registration in MIS similar to global electives?

Ans. It is beyond the purview of CIDER to answer this question. However, to put in proper perspective, the institute administration has clearly proclaimed that no such Center can exist without the required approvals from the appropriate bodies.

(e) In some of the IITs the students need to opt for minor in Second or sometimes in Third Year. What we are proposing here?

Ans. We are not proposing anything here in this document. This document and the CIDER only encourages the departments to start Minor programs in the interdisciplinary areas. This is so, because there is a scope of such programs eventually graduating into an MTech program in the same interdisciplinary area – which would then foster research in that specific interdisciplinary area.

(f): By introducing this B Tech (Minor) do you think we will require to change the recently framed B Tech programme curriculum? Will it disturb the floated electives or the floated electives can be combined properly or just interlinked existing electives across departments in same or similar area will serve this purpose to certain extent?

Ans.

Q30: Any possibility exists where we can recommend to include or insist to encourage at least 30 percent of covering of syllabus by industry personnel(may be on virtual platform) including conduct of lectures by adjunct faculty. This will be the indirect way to bring industry to the academia with suitable remuneration and building stronger linkages for internship, training placement and other self-financed courses including PG diploma etc. This will create some good sensation amongst our B Tech students and excitement amongst faculty and will be unique programme at NIT Surat. Industry visit will be by default part of it with dedicated 02 credits or audit requirement.

A30. The idea conveyed in the question is really exemplary. However, it would not be wise to have restricted specifications – the rules are meant to be open to the extent possible; but their implementation needs to be stricter. Such a mandate when not met with, in certain case, would cause the rule to be violated. It is the occurrence of the latter that is to be vehemently prevented. However, all the efforts must be made by the CIDER to rope in as much of expertise from the industry, as is possible and is within the scope of an activity.

Q31: I believe the department has to come up with a list of subjects, say in case of minor in energy engineering, the list of subjects can be Power Plant Engineering, Renewable and Sustainable Energy, Energy Conservation Management & Audit, Energy Economics, Applied Thermal Engineering (20 credits around). Thus this can be included in the form of B Tech Brochure with syllabus contents and relevant industry linkages. The essential and compulsory part of these subjects can be practical component which is normally not the case in electives. We can also think of our experiments on introducing experiential learning here to certain extent.

A31: Noted. These aspects must be kept within the ambit of implementation.

Q32: B Tech Final Year Projects Minor Programme linkages : The Best part of Minor programmes can be selection of B Tech project by a group of interdisciplinary students. Say a group of 05 students working on a B Tech regular project in Energy Engineering Minor areas with B Tech project area say
S V National Institute of Technology, Surat

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).

Electric Vehicle Prototype Development where as this activity is now providing platform for Two students of B Tech (Electrical) working on Battery Management and Electric Motor Parts, One BTech (Electronics Engineering) student working on Sensor parts and Two B Tech (Mechanical Engineering) student are now working on Chassis, Steering, suspension, braking and simultaneously also learning regenerative braking. Thus, this will lead to product development of the Electric Vehicle Prototype which is now getting monitored not only by Faculty of SVNIT Surat but also by Industry Person who is also part of teaching to a smaller extent. This will also open up the possibility for these five students to have a startup with ASHINE and thus a very good interdisciplinary ecosystem will get formed.

A32: Noted. Only two observations. First, it is not wise to mandate interdisciplinary major projects in Minor programs – because any such compulsion could lead to the compromise in quality. Hence, although it would be wise to encourage interdisciplinary projects in general, the same must not be binding. The research growth in the horizontal spectrum must not be at the cost of that in depth, in the vertical within the department's core strengths. Second, yes, the interdisciplinary projects even for those who do not opt for Minor degrees must be encouraged. The same is already mentioned as one of the deliverables in the document.

Blank

S V National Institute of Technology, Surat

Proposal for setting up a Centre for Interdisciplinary Education and Research (CIDER).