Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

ATTENDANCE SHEET

16th PLANNING & MONITORING BOARD MEETING
ON 18.03.2023 AT 10.30 am
VENUE: INTERNATIONAL CONFERENCE HALL

S.No	Name	Designation	Signature
1	Prof. Dr. S. Salivahanan, Vice Chancellor, Vel Tech.	Chairperson	S. Salivd
2	Dr. S. Shanmugavel, Formerly Registrar, Anna University, Director, National Engineering College, Kovilpatti Contact No. 76677386392/ 9488702250 Email: director@nec.edu.in	External Member	
3	Dr. B. Ramamoorthy, Formerly Professor, IIT, Madras Advisor (Academic) PSG Institutions, Coimbatore Contact No. 6374276969 / 9444468293 / 98421 32605 Email:advisor.academic@psgtech.ac.in, ramoo1955@gmail.com	External Member	18/3/23
4	Dr. Ligy Philip, Professor, Dept. of Civil Engineering, IIT, Madras, Chennai Contact No. 044-22574274 Email: ligy@litm.ac.in	External Member	
5	Dr.A.T.Ravichandran, The Dean (Academics), Vel Tech.	Internal Member	18/3
6	Prof. S. Irudayaraj, Dean (SoMC), Vel Tech.	Internal Member	
7	Prof. M. Sivakumar, Dean (FME), Vel Tech.	Internal Member	18/3/23

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S.No	Name	Designation	Signature
8	Dr. P. Chandrakumar, Dean (Industry Relations), Vel Tech.	Internal Member	
9	Dr. B. Nagalingeswara Raju, Dean (Hostels), Vel Tech.	Internal Member	
10	Prof. Dr. E. Kannan, Registrar, Vel Tech.	Secretary	

S. Salivm

Vice Chancellor

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THE 16th MEETING OF THE PLANNING AND MONITORING BOARD

scheduled on 18.03.2023 at 10.30 A.M
VENUE: INTERNATIONAL CONFERENCE HALL

AGENDA

	A. OPENING
16.1	*To record the notice of convening 16th Meeting of the Planning and Monitoring Board on March 18, 2023.*
16.2	*To consider the minutes of 15th Meeting of the Planning and Monitoring Board held on March 25, 2022.*
16.3	*To review the action taken on the decisions of the previous meeting held on March 25, 2022.*
16.4	*To approve and record the Agenda of the 16th Meeting of the Planning and Monitoring Board on March 18, 2023.*
16.5	*To inform the Board about the leave of absence of the members.*
	B. ITEMS FOR CONSIDERATION AND APPROVAL
16.6	*To consider and recommend the establishment of New building facilities / amenities.*
16.7	*To discuss the proposed intake of students to different UG and PG programmes of this Institution for the Academic year 2023-24.*
16.8	*To discuss and introduce the new specialization - Internet of Things (IoT) in B.Tech. (ECE) with the support of Centre of Excellence by Industry*
16.9	*To discuss and develop the e-content material in the form of Videos for minimum of 2 courses in each department in every semester.*
	C. ITEMS FOR DISCUSSIONS AND DECISIONS
16.10	To discuss the plan of action and assignment of tasks to various Deans/HoDs in the process of attainment of goals as per the Strategic Plan.
	D. ITEMS FOR REPORTING
16.11	*To report the NAAC assessment of accreditation to the Institution in the second cycle.*
	E. CONCLUSION
16.12	*Any other item with the permission of the Chairperson.*
16.13	*To fix the date for holding the next meeting of the Planning & Monitoring Board.*
	VOTE OF THANKS

Prof. S. Salivahanan
Vice Chancellor

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MEMBERS OF THE BOARD

1. Prof. Dr. S. Salivahanan, Vice Chancellor, Vel Tech.	Chairperson
2. Dr. S. Shanmugavel, Formerly Registrar of Anna University, Director of National Engineering College, Kovilpatti.	External Member
3. Dr. B. Ramamoorthy, Formerly Professor, IIT, Madras Advisor (Academic)-PSG Institutions, Coimbatore.	External Member
4. Dr. Ligy Philip, Professor, Dept. of Civil Engineering, IIT, Madras, Chennai.	External Member
5. Dr. A.T. Ravichandran, Dean (Academics), Vel Tech.	Internal Member
6. Dr. S. Irudayaraj, Dean (SoMC), Vel Tech.	Internal Member
7. Prof. M. Sivakumar, Dean (FME), Vel Tech.	Internal Member
8. Dr. P. Chandrakumar, Dean (Industry Relations), Vel Tech.	Internal Member

Prof. S. Salivahanan
Vice Chancellor

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9. Dr. B. Nagalingeswara Raju, Internal Member
   Dean (Hostels),
   Vel Tech.

10. Prof. Dr. E. Kannan, Secretary
    Registrar,
    Vel Tech.

Prof. S. Salivahanan
Vice Chancellor

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MINUTES OF THE 16th MEETING OF THE PLANNING AND MONITORING BOARD

A. Opening

The Chairperson extended a warm welcome to the members especially the external members for participating in the meeting amidst their busy schedules and the internal members. The Chairperson has highlighted some of the significant academic activities took place in the academic year 2022-23 such as Induction programme, commencement of offline classes, 12th convocation, AICTE / BCI approval for the degree programmes, IEEE Seminar, LAVAZA 23 (the intercollegiate cultural student mega fest) Funded projects, Research publications etc. in detail.

The Chairperson informed that he was much elated to inform the august members about the accreditation by the NAAC with A++ to this institution in the second cycle. The proceedings started after the welcome address of the Chairperson.

16.1 **To record the notice of convening 16th Meeting of the Planning and Monitoring Board on March 18, 2023.**

The meeting notice has been sent to all the members on 01.03.2023 and a copy of the meeting notice is placed at Appendix-A.

A. 16th P&M Meeting Notice

Appendix-A Click here

RESOLVED to record the notice convening 16th Meeting of the Planning and Monitoring Board on March 18, 2023.

16.2 **To consider the minutes of 15th Meeting of the Planning and Monitoring Board held on March 25, 2022.**

A copy of the minutes of the 15th meeting of the Planning and Monitoring Board is placed at Appendix-B.

Prof. S. Salivahanan
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Appendix-B Click here

RESOLVED to approve and record the the minutes of 15th Meeting of the Planning and Monitoring Board held on March 25, 2022.

16.3 To review the action taken on the decisions of the previous meeting of Planning and Monitoring Board held on March 25, 2022.

Table 1: Action Taken Report

Item.No	Subject	Decision	Action Taken
15.5	To consider and recommend the establishment of New building facilities / amenities.	The Board has approved the status of establishment of New buildings, facilities / amenities.	The pending construction work of Hostel F Block First floor and Structural lab have been completed.
15.6	To discuss and approve the Strategic Plan 2021-26 of this Institution.	During discussion, the external members suggested to make use of NPTEL, increase the intake of PG Students, conduct more no. of international conferences on yearly basis, and encourage alumni interaction.	Taken note of the suggestions of the external members. The Action Plan has been drawn wherein tasks assigned to different Deans and Heads for the successful implementation of various targets as per the Strategic Plan are demarcated.
15.9	To discuss the activities connected with Industry relations during the academic year 2022-23.	Prof. Ramamurthy suggested that the industry experts handling one or two credit courses related to industries may be designated as Visiting Faculty members under the adjunct faculty scheme in force in many institutions.	In addition to the existing adjunct faculty members, few more adjunct faculty members from Industries have been appointed in 2022-23. Presently the Industry Relations office is utilizing the services of 8 Adjunct faculty members and in the office of the International Relations, there are 48 Adjunct faculty members available.

RESOLVED to approve and record the action taken on the decisions of the previous meeting of Planning and Monitoring Board held on March 25, 2022.

Prof. S. Salivahanan
Vice Chancellor

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

16.4 To approve and record the Agenda of the 16th Meeting of the Planning and Monitoring Board on March 18, 2023.

RESOLVED to approve and record the Agenda of the 16th Meeting of the Planning and Monitoring Board on March 18, 2023.

16.5 To inform the board about the leave of absence of the members.

The Chairperson informed that Dr. Ligy Philip conveyed his inability attend the meeting due to pre-occupation.

RESOLVED to record the leave of absence of Dr. Liggy Philip.

B. Items for Consideration and Approval

16.6 To consider and recommend the establishment of New building facilities / amenities.

Prof. Irudayaraj, Dean, (SoMC) has presented a note on establishment of new building facilities / amenities and Prof. B.Nagalingeswara Raju, Dean (hostels) presented the details of the Hostel buildings proposed to be constructed in this academic year as in the Appendix -C given below.

Prof. B. Ramamoorthy informed that virtual campus tours are becoming more and more popular The invention, and continued innovation, of virtual reality (VR) technology has allowed colleges and universities to offer virtual campus tours through the website in the home page. Providing a virtual tour that gives an immersive experience of the campus and teaching facilities helps increase enquiries and applications from overseas students and the member suggested that Vel Tech could provide virtual tour covering different schools and other locations like research park, centre of excellence,TBI, laboratories, hostels etc. which might be largely helpful to the viewers intending to know about various facilities and amenities in the institution campus through the Website.

C. Establishment of New Building

Appendix-C Click here

Prof. S. Salivahanan
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R&D Institute of Science and Technology
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RESOLVED to approve the establishment of New building facilities / amenities.

16.7 To discuss the proposed intake of students to different UG and PG programmes of this Institution for the Academic year 2023-24.

Prof. E. Kannan, Registrar presented a note on the intake of students to different Under Graduate, Post Graduate programmes of this Institution in Engineering & Technology, Arts, Science, Management and Law for the Academic year 2023-24 as in the table given below:

PROPOSED INTAKE FOR THE ACADEMIC YEAR 2023-24.

Table 2: UNDER GRADUATE - ENGINEERING PROGRAMMES

S.No.	Programme	Proposed Intake 2023-24
1	AERONAUTICAL ENGINEERING	60
2	ARTIFICIAL INTELLIGENCE (AI) AND DATA SCIENCE	60
3	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	60
4	BIOMEDICAL ENGINEERING	60
5	BIOTECHNOLOGY	60
6	CIVIL ENGINEERING	60
7	COMPUTER SCIENCE & ENGINEERING	1104
8	COMPUTER SCIENCE AND DESIGN	60
9	COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)	60
10	COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)	60
11	COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)	60
12	ELECTRICAL AND ELECTRONICS ENGINEERING	60
13	ELECTRONICS & COMMUNICATION ENGINEERING	480
14	INFORMATION TECHNOLOGY	60
15	MECHANICAL ENGINEERING	60
TOTAL		2364

Table 3: POST GRADUATE - PROGRAMMES

S.No.	Programme	Proposed Intake 2023-24
1	AERONAUTICAL ENGINEERING (UNMANNED AERIAL VEHICLE)	18
2	BIG DATA ANALYTICS	18
3	BIOTECHNOLOGY	18
4	COMPUTER SCIENCE AND ENGINEERING	18
5	EMBEDDED SYSTEMS AND TECHNOLOGIES	18
6	ENVIRONMENTAL ENGINEERING	18
7	INDUSTRIAL SAFETY AND ENGINEERING	18
8	INFORMATION AND CYBER SECURITY	18

Prof. S. Salivahanan
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R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

S.No.	Programme	Proposed Intake 2023-24
9	METALLURGICAL AND MATERIAL SCIENCE ENGINEERING	18
10	NETWORK ENGINEERING	18
11	POWER ELECTRONICS	18
12	STRUCTURAL ENGINEERING	18
13	MASTER OF BUSINESS ADMINISTRATION	120
TOTAL		336

Table 4: UNDER GRADUATE and POST GRADUATE - ARTS & SCIENCE PROGRAMMES

S.No.	Programme	Proposed Intake 2023-24
1	B.Com.	360
2	B.B.A	60
3	B.SC VISUAL COMMUNICATION	30
4	B.SC MULTIMEDIA	30
5	B.A. L.L.B (Hons.)	120
6	B.Com. L.L.B (Hons.)	120
7	M.A., English	30
8	M.Sc., Mathematics	30
9	M.Sc., Physics	30
10	M.Sc., Chemistry	30
11	M.Sc., Data Analytics	30
TOTAL		870

Prof. B. Ramamoorthy suggests that wherever the department wise intake of students are given, it will be appropriate to mention the department wise FSR ratio also so that it will help to ensure whether the Institution maintaining the prescribed FSR ratio for all programmes or otherwise.

RESOLVED to approve and record the proposed intake of students for different UG and PG programmes of the institution for the academic year 2023-24.the establishment of New building facilities.

16.8 To discuss and introduce the new specialization - Internet of Things (IoT) in B.Tech. (ECE) with the support of Centre of Excellence by Industry.

Dr.P.Chandrakumar Dean (Industry Relations) presented a detailed note on the the programme and modus operandi as in the Appendix-D.

D. Internet of Things (IoT)

Appendix-D Click here

Prof. S. Salivahanan
Vice Chancellor

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Prof. Shanmugvel states that with a view to enhance the employability skills and impart indepth knowledge in emerging areas which are usually not being covered in Undergraduate Degree credit framework, AICTE has come up with the concept of 'Minor Degree' in emerging areas. Minor Degree will carry 18 to 20 credits in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline i.e. 160 credits usually especially in areas like Artificial Intelligence and Machine Learning, Cyber Security, Data Science, Internet of Things (IoT) etc.and he suggests that the B.Tech. IoT of Vel Tech industry supported programe may also be on the same norms and guidelines.

Prof. B. Ramamoorthy opines that with the support of Industry partners, Vel Tech can conduct value added courses with certification at the end or to consider it as a minor degree for disciplines not only for ECE.

RESOLVED to approve the proposal to introduce the new specialization - Internet of Things (IoT) in B.Tech. (ECE) with the support of Centre of Excellence by Industry.

16.9 To discuss and develop the e-content in the form of Videos for minimum of 2 courses in each department in every semester.

Prof. A.T. Ravichandran, Dean(Academics) presented the details of e-content material and the faculty members, who are going to develop e-content videos on the corresponding e-content materials for different courses .A chart showing the details is placed at Appendix-E.

E. e-content courses

Appendix-E Click here

Prof. S. Salivahanan
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Prof. B. Ramamoorthy states that the aim of the digital university establishment is to increase the access of higher educational services for the youth and students of India. He pointed out that the Govt. of India in its budget 2022-23 has announced establishment Digital University. The UGC has also notified that 40% of the academic work to be carried out through online. He emphasizes the video lectures to be of good quality in all aspects.

The Video and sound quality should be good enough for which a considerable amount has to be spent from the budget and he hopes that all these initiative will make the attempt reasonably successful. Prof. S.Shanmugavel endorsed the view of Prof. B. Ramamoorthy saying that it is a big task to be undertaken upholding the name and fame of this reputed Institution.

RESOLVED to approve the proposal for developing the e-content in the form of Videos for minimum of 2 courses in each department in every semester.

C. Items for Discussion and Decision.

16.10 To discuss the plan of action and assignment of tasks to various Deans/HoDs in the process of attainment of goals as per the Strategic Plan.

Dr. M. Rajeev Kumar, Dean(Quality Assurance) presented the assignment tasks entrusted to the Deans and HoDs of the Institution for the accomplishment of goals as per strategic plan and the chart is put up at Appendix-F.

F. Plan of Action

Appendix-F Click here

After eloborate discussions on various aspects specified in the Assignment task, the external members have suggested that the FSR for Arts and Science which was shown as 1:25 would be made 1:20 on the basis of NIRF requirement. Secondly, the members have agreed upon the initiative stipulated to increase 20% qualified faculty members until the target is completed and they advised to fix the target.

Prof. S. Salivahanan
Vice Chancellor

Vel Tech
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The Dean (Quality Assurance) ensured that action would be taken suitably in consultation with the authorities. The third suggestion of the external members was to include a target stipulation for citation intex in the assignment task.

RESOLVED to approve and record the plan of action and assignment of tasks to various Deans/HoDs in the process of attainment of goals as per the Strategic Plan.

D. Items for Reporting

16.11 To report the NAAC assessment of accreditation to the Institution in the second cycle.

Dr. M. Rajeev Kumar, Dean (Quality Assurance) presented the Categories and the CGPA obtained category wise at the NAAC Accreditation in detail.

G. NAAC assessment

Appendix-G Click here

Dr. Prof. Shanmugavel suggested competency evaluation to the teachers once in a year or once in two years will definitely enhance the quality of teaching by inviting outside experts so that the teachers would be aware of improving their teaching skill. Prof. Ramamoorthy has endorsed the view of Prof. Sakthivel suggested that expert teachers should be invited to deliver special lectures on some topics on hourly basis to inspire the teachers of this Institution to know how the experts are making use of their talents as to their way of teaching, way of interaction and with other techniques.Prof. B. Ramamoorthy pointed out an example as how Prof. Pandurangan, Professor of Computer Science and Engineering, IIT Madras use to teach various concepts of computer science and engineering in classroom using only talk and chalk method without using Power Point or whatever be the modern tools so extensively in his classroom and

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Prof. B. Ramamoorthy has also pointed out that currently in the VIT Chennai campus B.Tech in CSE, EEE, ECE, and Mechanical Engineering are accredited by ABET while in Vellore Campus, B.Tech in Biomedical, Civil, CSE, ECE, EEE, E&I, Information Technology, Mechanical Engineering and Mechanical with specialization in Automotive Engineering are accredited by ABET. In the US, an engineering program should be accredited by ABET, and the college/University as a whole should be accredited by the regional accreditor. He suggested that Vel Tech might also go for ABET ranking as the Institution is deserved.

Dr. M. Rajeev Kumar, Dean (Quality Assurance) informed that the suggestions of the members would be taken note of for exploring the feasibility for implementation.

RESOLVED to record the report of the NAAC Accreditation in respect of Vel Tech in the Second Cycle.

E. Conclusion

16.12 Any other items with the permission of Chairperson.

No item other than the agenda items included in the Agenda was taken up for discussion.

16.13 To fix the date for holding the next meeting of the Planning and Monitoring Board.

It has been decided to hold the next meeting of the Planning and Monitoring in March 2024.

VOTE OF THANKS.

Prof. E. Kannan has thanked all the members particularly the external members for attending the meeting, actively participating in the discussions and offering valuable suggestions. He informed that the suggestions of the members would be included in the minutes which would be sent to all the members shortly for approval.

Prof. S. Salivahanan
Vice Chancellor

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ANNEXURE-I

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

Date:

Ref. No. VT/R/MN/P&M/22-23/05-4 01-03-2023

To

All Members of P&M Board

Sir/Madam,

Sub: 16th meeting of the Planning and Monitoring Board to be held on 18.03.2023– Invitation for attending the meeting – Reg.

***

I am, by direction, to inform you that according to the decision taken at 15th meeting of the Planning and Monitoring, the Vice Chancellor is pleased to convene 16th meeting of the Planning and Monitoring on 18.03.2023 at 10.30 a.m.

The Planning and Monitoring meeting will be held at the International Conference Hallof this Institution through physical mode on that particular day.

I request you to kindly make it convenient to participate in the meeting of the Planning and Monitoring Board and offer your valuable suggestions.

Thanking you,

Yours sincerely,

REGISTRAR

Prof. Dr. E. Kannan
Registrar

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R&D Institute of Science and Technology
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Encl: Agenda of the 16th meeting of the Planning and Monitoring Board.

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Ref no 14/15000

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MINUTES OF THE 15th MEETING OF THE PLANNING AND MONITORING BOARD

on 25.03.2022 at 10.00 A.M
Mode: Video Conference

MEMBERS

1. Prof. Dr. S. Salivahanan, Chairperson
   Vice Chancellor,
   Vel Tech.

2. Dr. S. Shanmugavel, External Member
   Formerly Registrar of Anna University,
   Director of National Engineering College,
   Kovilpatti.

3. Dr. B. Ramamoorthy, External Member
   Formerly Professor, IIT, Madras
   Advisor (Academic)-PSG Institutions,
   Coimbatore.

4. Dr. Ligy Philip, External Member
   Professor, Dept. of Civil Engineering,
   IIT, Madras, Chennai.

5. Dr. A.T. Ravichandran, Internal Member
   Dean (Academics),
   Vel Tech.

6. Prof. R.S. Valarmathi, Internal Member
   Dean (Quality Assurance),
   Vel Tech.

7. Dr. S. Irudhyaraj, Internal Member
   Dean (SoMC),
   Vel Tech.

8. Prof. M. Sivakumar, Internal Member
   Dean (FME),
   Vel Tech.

9. Dr. P. Chandrakumar, Internal Member
   Dean (Industry Relations),
   Vel Tech.

10. Dr. B. Nagalingeswara Raju, Internal Member
    Dean (Hostels),
    Vel Tech.

11. Prof. Dr. E. Kannan, Secretary
    Registrar,
    Vel Tech.

A. Opening

The Chairperson, in his welcome address, conveyed thankfulness for all the members for attending the meeting. He highlighted certain important academic activities such as commencement of classes, conduct of end semester examinations, conduct of 11th convocation, award of degrees including Honorary degree to Dr. B. Venkataraman, Director, IGCAR, Kalpakkam, submission of SSR to the NAAC and SAR for NBA, He has also conveyed the messeage about the participation of a student of the School of Law Ms. Harini at the Republic Day ceremony at New Delhi, who is the only NCC cadet participated in the Republic Day rally on 26.01.2022 at New Delhi from the state of Tamil Nadu.
After the welcome address, the proceedings were started.

15.1 To record the notice of convening 15th Meeting of the Planning and Monitoring Board on March 25, 2022.

The meeting notice has been sent to all the members 16.09.2022 and a copy of the meeting notice is placed at Appendix-A.

A. 15th P&M Meeting Notice

Appendix-A Click here

***RESOLVED** to record the Meeting Notice of the 15th meeting of the Planning and Monitoring Board*

15.2 To consider the minutes of 14th Meeting of the Planning and Monitoring Board held on May 22, 2021.

The minutes of the 14th meeting of the Planning and Monitoring Board are placed at Appendix-B.

B. 14th P&M Meeting Minutes

Appendix-B Click here

RESOLVED to approve and record the minutes of the 14th meeting of the Planning and Monitoring Board.

15.3 To review the action taken on the decisions of the previous meeting of Planning and Monitoring Board held on May 22, 2021.

Table 1: Action Taken Report

Item.No	Subject	Decision	Action Taken
14.5	Approval of Policies.	The board discussed in detail on the following policies. 1. Research Policy 2. Innovation and Start up Policy 3. Campus Infrastructure and Maintenance Policy 4. IT Policy	The corrections suggested by the P&M board have been incorporated.
14.7	Approval of new courses.	The P&M Board accepted the proposal of starting B.Tech. programme in 1. Artificial Intelligence and Data Science. 2. Artificial Intelligence and Machine Learning. 3. Computer Science and Design. .	The proposal approved by the AICTE and it was implemented.

RESOLVED to record the action taken on the decisions of the previous meeting of Planning and Monitoring Board held on May 22, 2021.

15.4 To inform the board about the leave of absence of the members.

The Chairperson informed that Dr. Ligy Philip was absent for the meeting due to some unavoidable reasons.

RESOLVED to record the leave of absence of Dr. Ligy Philip due to unavoidable reasons.

B. Items for Consideration and Approval

15.5 To consider and recommend the establishment of New building facilities / amenities.

Prof. Irudayaraj, Dean (SoMC) presented the status on the establishment of New building facilities / amenities, as follows:

Table 2: Completed Building / Construction work

S.No.	Planned in P&M 2020	Building Sqft	Status as on 21.03.2022
1	Leaders Hostel C Block(G+3 Floors)	75520	Completed
2	Construction of Dining Hall in Leaders Hostel	13385	Completed
3	Shifting the 230 KV Tower lines - 3 nos. located between the towers 142 to 143 in the Institution	-	Completed

Table 3: Proposed work

S.No.	To be discussed in P&M 2021	Building Sqft	Status
1	Prince Hostel F-Block – First Floor -14 Rooms to be Completed	7322	Work in Progress and it will be completed on or before June 2022
2	Civil Engineering Department – Structural Lab (Loading Frame) Construction Work	1475	Work in Progress and it will completed on or before June 2022

***RESOLVED** to record the status of establishment of New building facilities / amenities*

15.6 To discuss and approve the Strategic Plan 2021-26 of this Institution.

Prof. E. Kannan presented various aspects of the Strategic Plan like Academics, Research and Industrial Relations and explained the set-out targets and goals with key indicators as in the draft copy of the Strategic Plan. He has also brought to the notice of the members regarding the previous strategic plan and achievement of proposed goals pertaining to the increase of students strength, increase in the International faculty members, creation of centres of excellence, introduction of new courses such as B.Arch., Media Studies and Law and the percentages of achievement. Prof. E. Kannan pointed out the proposed plans under various categories for achievement during the Strategic Plan period 2021-26. He also requested all the members to go through the draft Strategic Plan and to offer their valuable inputs sooner or later for incorporating them appropriately.

Dr. P. Chandrakumar, Dean (Industry Relations explained the Industry oriented activities such as TBI, Business starts-ups, Creation of Nidhi Priyas centre, Funding Projects from DST, DBT and other funding agencies. He explained how the institution is planning to achieve the better results as proposed in the Strategic Plan with the help of graphical / diagrammatic charts in his presentation.

Dr. Balasubramanian, Dean (R&D) presented the glimpse of Research and Development activities under the heads Projects, research departments / research park, promoting industry related activities, improving publications, citations, increasing funding agencies, Academic coloboration research, patents etc. highlighting the achievements and proposed goals in the Strategic Plan period 2021-26.))

Dr. P.Suresh, Dean (International Relations) explained the activities carried out in the office of the International Relations and the plan for increase the international faculty members, Student Exchange prograamme etc. as indicated in the Strategic Plan with future plans in improving the activities under different facets.

Prof. Shanmugavel, the external member pointed out that the progress of Faculty Exchange Programme and international collaboration appear to be moderate and emphasized the need for strengthening them. He added that focus should be given to get more active MoUs and to conduct more number of Semester abroad programmes. He appreciated that the other features mentioned in the Strategic Plan are in order.

The following are the suggestions given by Prof. Ramamurthy, the other External member:

1. **Motivating the faculty members to acquire Ph.D, which should be made mandatory**
2. **Improvement of faculty / students self learning capacity by sponsoring them to online courses through NPTEL, an Indian learning platform for university-level science, technology, engineering, and mathematics subjects and other platforms.**
3. **Reimbursements of expenses incurred on sponsoring the faculty members by the institution itself to the maximum extent.**
4. **The percentage of placements should be calculated on the basis of admitted students as per the approved intake by AICTE and the selected students for placements and not on the basis of the participated students and selected students in the placement processes.**
5. **Increase and improve the number of PG Courses and students getting admission to PG Courses in the thrust areas.**
6. **Conduct of more number of International Conferences on yearly basis**
7. **To monitor the Faculty members registered for Ph.D. whether are completing the programme within the stipulated period**
8. **Tracking the students going for higher studies and to see how they are progressing.**
9. **To provide GATE coaching to the students**
10. **Improvement of Learning Management systems, Increasing the number of ICT enabled classes**
11. **Improvement of Laboratories with required budgeting and support.**
12. **Tracking of Alumni whereabouts and conducting Alumni meetings periodically.**

C. Strategic Plan 2021-26

Appendix-C Click here

RESOLVED to approve and record the strategic plan 2021-26.

15.7 To discuss and approve the revised policies of the Institution.

Prof.E. Kannan presented different policies and procedures. Prof. E. Kannan explained as how the policies have been brought out keeping in mind, the mission and vission of this Institution and he gave a glimpse of the important policies and procedures relating to Campus Maintenance and infra structure development, Information Technology Policy, Scholarship Policy, Reservation Policy and other procedures involved in Semester registration, course registration, code of conduct, Faculty appraisal, promotions etc. as per the Appendix-D for discussion and approval.

D. Revised Policies

Appendix-D Click here

Dr. Balasubramanian, Dean (R&D) has highlighted the features of IPR Cells, guidelines of patents while presenting the IPR Policy. Dr. Chandrakumar, Dean,(industry Relations-) presented the unique features of Consultancy Policy with the explanation as how the eco system surrounded by the Automobile companies in and around the institution is conducive for promoting industry related activities at this Institution. He explained the details of the start-ups, the methodology, facilities given to the faculty members and students to motivate them to take up business start-ups in detail.

Prof. Ramamurthy, the External members suggested that it will be good if the Institution allocates sufficient grants for some important start-ups and motivate the entrepreneurs to take up more number of start-ups as it will add some colour. Secondly, he pointed out that Plagiarism mechanism should be used for all documents including M. Tech / B.Tech theses in addition to applying it in the cases of Ph.D. theses and project proposals.

Thirdly Prof. Ramamurthy suggested that the Academic Auditing should be conducted with the help of renowned academicians designated at higher levels so as to get the desired quality and outcome. In answering to the queries of Prof. Ramamurthy, Dr. Balasubramanian, Dean (R&D) replied that the plagiarism is subjected to all the documents including theses / projects submitted by the students and researchers with the admissible mismatch up to 15% . The Dean (Industry Relations) confirmed allocation of grants for start-ups.

RESOLVED to approve and record the revised policies of the Institution.

15.8 To discuss and approve the new courses and facility to be established in the academic year 2021-22.

Prof.E.Kannan reported that the AICTE, the competent authority for the grant of approval for new programs and intake of students, suggested that the proposed new courses to be offered at the Institutions/deemed to be universities shall be from the emerging areas of various disciplines as specified in the AICTE approval Handbook.

On receipt of the AICTEs approval Process Handbook, the Institution would consider the feasibility of offering new courses under the emerging areas of importance.

The External members have suggested to offer for new course in thrust areas citing Cyber Security is one such area. They have specifically mentioned that the courses for which the admissions are less, may be closed down. The continuity of these courses would affect the NIRF Ranking. Prof. E. Kannan pointed out that there is extraordinary demand for some courses as in the case of M.Tech. Safety Engineering, which has been approved by the Govt. of Tamil Nadu. Prof. Shanmugavel suggested that the Institution may get any inputs for the advancement of course contents of M.Tech. Safety Engineering from Prof. Sankaranarayanan who was instrumental in introducing M.Tech. in Safety Engineering at REC, Trichy (now called NIT, Trichy). The Chairperson listed out the non viable PG courses, closed down in the last academic year.

RESOLVED to approve and record approve note presented in connection with the starting of the new courses and facility in the academic year 2021-22.

C. Items for Discussion and Decision.

15.9 To discuss the activities connected with Industry relations during the academic year 2021-22.

The Dean (Industry Relations) presents various activities connected with the Industrial Relations under different headings such as Credit Course during the summer semester of the Academic Year 2021-22, Industry Projects - 2021-22, MoU signed, Consultancy Projects and FDP as in the Appendix E.

E. Industry Relations

Appendix-E Click here

Prof. Ramamurthy suggested that the industry experts handing one or two credit courses related to industries may be designated as Visiting Faculty members under the urgent faculty scheme in force in many institutions.

RESOLVED to record the activities connected with Industry relations during the academic year 2021-22.

D. Items for Reporting

15.10 To record the status of submission of SSR to NAAC.

Dr.Rajeevkumar of Quality Assurance Cell reported that the Institutional Information for Quality Assessment (IIQA) was submitted to the NAAC on 30.12.2021. After the initial verification, the IIQA has been accepted by the NAAC on 25.01.2022 and given approval for Self Study Report (SSR) submission. Subsequently, the SSR of the same has been submitted to NAAC on 09.03.2022.

The Student Satisfactory Survey (SSS) and clarifications on DVV are under progress.

RESOLVED to record the status of submission of SSR to NAAC.

15.11 To record the ranking and recognition to our Institution.

Dr.Rajeev kumar of Quality Assurance cell reported the ranking by International and National agencies under various categories, as given below:

1. International Ranking.
Times Higher Education (THE):

Vel Tech is ranked in the band 801-1000 in Times Higher Education World Universities Rankings 2022 for the first time out of 1662 ranked institutions in the Globe. The institution stands at 18th position out of 71 ranked institutions from India. Times Higher Education is created to assess the Universities performance on the global stage and to provide a resource for readers to understand the different missions

and successes of Higher Education Institutions. THE rankings cover three main missions of Universities activities: Research, Teaching and Impact. The Times Higher Education World Universities Rankings 2022 include more than 1,600 Universities across 99 countries and territories, making them the largest and most diverse Universities rankings to date.

In addition, the institution has also been ranked in the following categories which are announced by THE.

THE Impact Ranking 2021: Vel Tech has been ranked under the following Sustainable Development Goals (SDGs)

- SDG 6: Clean Water and Sanitation – 201 to 300 band in the World
- SDG 9: Industry, Innovation and Infrastructure – 201 – 300 band in the World
- SDG 10: Reduced Inequalities – 401 – 600 band in the world
- SDG 17: Partnership for the goals – 801 – 1000 band in the world

THE World University Rankings 2022 by Subjects

- Engineering – Band 601-800
- THE Emerging Economies University Rankings 2022 - Band 301-351
- THE Young University Rankings 2022 – Band 251-300

Quacquarelli Symonds (QS)

- QS Asia University Rankings 2022 – Band 601-650

2. National Ranking.

National Institutional Ranking Framework (NIRF) India Rankings 2021: Vel Tech is ranked in top 100 with 93rd position under Engineering Category, 101-150 band under Universities Category and 151-200 band under Overall Category by NIRF India Rankings 2021. The number of institutions participated in NIRF India Rankings for 2021 under Overall Category and Engineering Category are 1657 and 1143 respectively. This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations and broad understanding arrived at by a Core Committee set up by MoU, to identify the broad parameters for ranking various universities and institutions. The parameters broadly cover Teaching, Learning and Resources, Research and Professional Practices, Graduation Outcomes, Outreach and Inclusivity and Perception.

Atal Ranking of Institutions on Innovation Achievements (ARIIA) Ranking 2021.

- Recognized in the band "EXCELLENT" under the category "University & Deemed to be University (Private/Self Financed) (Technical)"

Dataquest Top T-School in India 2021

- Top 100 T-Schools (Overall) – Government and Private sector – 15th Rank
- Top T-Schools in India 2021 (Private) – 6th Rank
- Top T-Schools in India 2021 (South Zone) – 5th Rank

digitalLEARNING Top Engineering Institutes Ranking 2021

- Tamil Nadu – AAAAA
- 12th Rank in India

RESOLVED to record the Ranking and Recognition secured by Vel Tech. in the recent past.

E. Conclusion

15.12 Any other items with the permission of Chairperson.

No items other than those discussed in the Agenda of the 15th Meeting of the P&M has been taken up for discussion.

15.13 To fix the date for holding the next meeting of the Planning and Monitoring Board.

It has been decided to hold the 16th meeting of P&M in the month of March 2023.

VOTE OF THANKS

Prof. E. Kannan conveyed his immense pleasure and thankfulness to the members, especially the external members for taking part in the virtual meting and offering suggestions and inputs on different agenda items. Prof. E. Kannan requested for the suggestions and inputs, of any from the members on the draft Strategic Plan 2021-26 so as to incorporate them appropriately. Prof. E. Kannan thanked all the members for active participation in the discussions and continued support all these years.

With the Vote of thanks, the meeting came to a close.

ANNEXURE - III

Office of Maintenance and Services
Establishment of New Building facilities/ Amenities

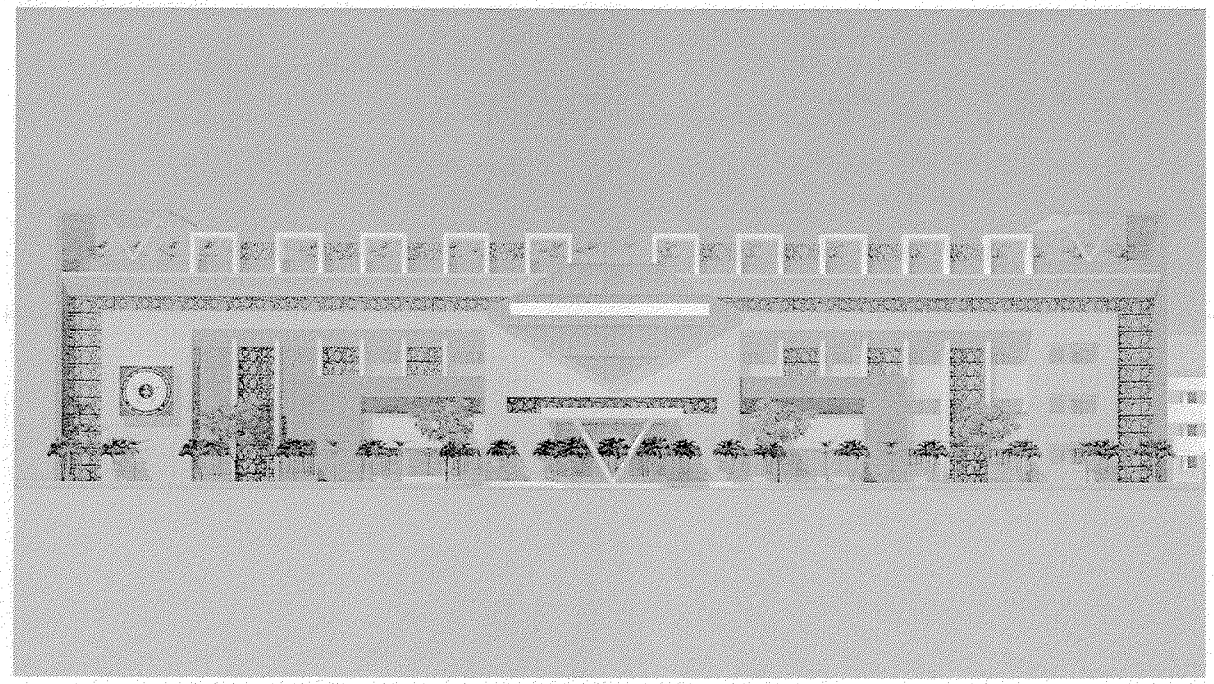
Sl.No.	Planned in the previous meeting	Area	Completion Status
1	Prince Hostel F-Block renovation – First Floor -14 Rooms To Be Completed	7322 sqft.	Completed
2	Structural Lab (Loading Frame) Construction Work	1475 sqft.	Completed

Sl.No.	Planned For The Year 2023-24	Area	Budget	Target date
1	Block 24 – Placement Block renovation	5400 sqft.	80,00,000	To Be Completed Before June 2023
2	Research Park – R&D Block - Terrace Flooring and Cool roof Tile Laying.	19000 sqft.	28,00,000	To Be Completed Before November 2023
3	Block 24 - Elevation work with ACP sheets.	17000 sqft.	1,25,00,000	To Be Completed Before November 2023
4	Block 24 – New Lift erection and commissioning	-	21,00,000	To Be Completed Before June 2023
5	Compound Wall construction – C.K Naidu Ground east)	310' Length X 9' Height	13,00,000	To Be Completed Before June 2023

Placement Block details:

Interview cabin - 18 Nos.
GD rooms - 6 Nos.
Placement officers cabin – 4 Nos.
Dean Campus to Corporate cabin - 1 No.
Training room - 1 No.
Meeting Room - 1 No.
Placement Trainers cabin – 18 nos..
Cafeteria for Placement staff – 1 No.

B24 Elevation



All Hostels New Works Proposal				
Sl.No	**Plan For The Year 2023-24**	**Area**	**Budget**	**Target Date**
1	TERRACE TILES-B3 HEROES	12250 Sft	1,837,500	Nov, 2023
2	TERRACE TILES -PRINCE F BLOCK	7300 Sft	1,095,000	Nov, 2023
3	PH A BLOCK TO F BLOCK RCC ROAD LAYING THROUGH KITCHEN	1290 Rft	6,500,000	Jun, 23
4	RCC ROAD (B3 HOSTEL LOARDS TO STP 200 KI	1100 Rft	5,566,000	Jun, 23
5	C D E BLOCK RAINWATER TRENCH (PRINCE)	400 Rft	720,000	Jun, 23
6	LEADERS HOSTEL NEW KITCHEN	8127 Sft	12,857,000	May, 23
7	LEADERS D BLOCK(GF & FF) GF-Dining hall FF- 33 Rooms 4 IN 1	18988 Sft	9,667,184	May, 23
8	LEADERS STP-400 KLD Location Changing work	1816.5 Sft	2,331,966	May, 23
9	KINGS HOSTEL Ground Floor-20 Rooms Restroom Rennovation Work First Floor 10 Rooms Restroom Rennovation Work	0	2,331,966	May, 23
10	B3 KITCHEN WORKER ROOMS 4 IN 1 Rooms-16 8 IN 1 Rooms-9 Total -25 Rooms	11610 Sft	1,519,042	May, 23
11	LEADERS-COMPOUND WALL WORK	539 Rft	2,478,926	Jun, 23
12	VVH ROOMS RENNOVATION WORK Total-90 4 IN 1 Rooms With Attached Restrooms	39180 Sft	25,112,724	Jun, 23
TOTAL			**72,017,308**	

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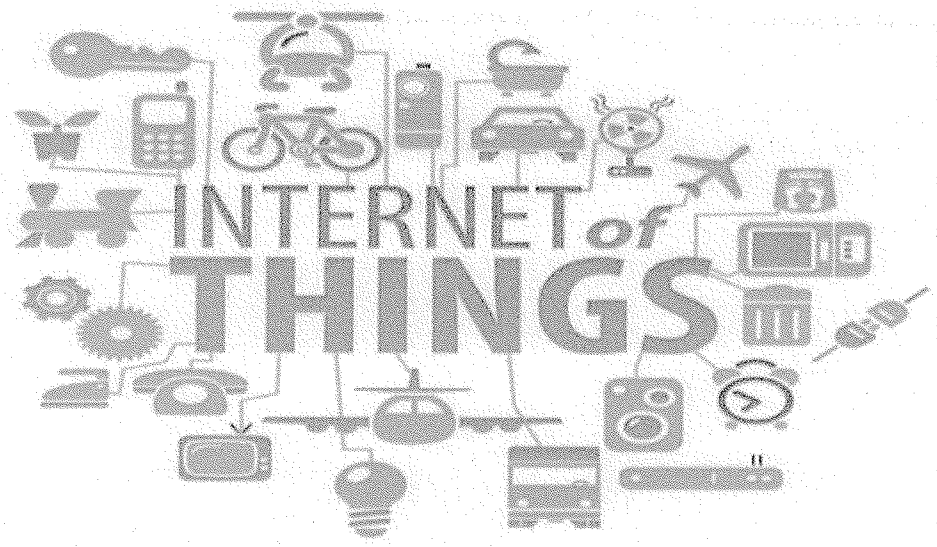
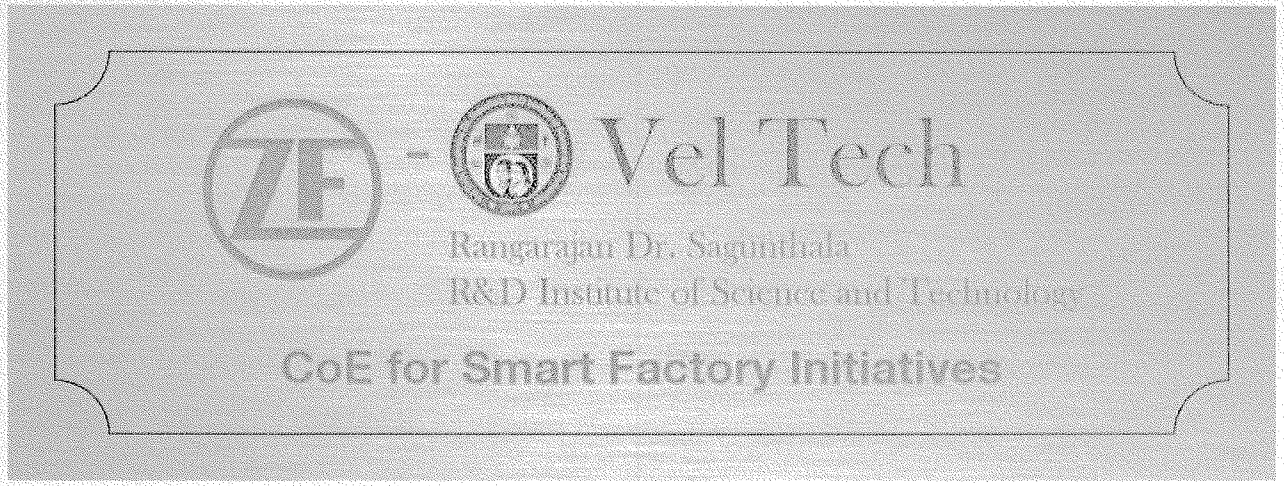


16.8 To discuss and introduce the new specialization - Internet of Things (IoT) in B.Tech. (ECE) with the support of Centre of Excellence by Industry.

Offered by Department of ECE in Association with CoE for Smart Factory Initiatives Supported M/s. ZF Commercial Vehicle Control Systems India Limited

ANNEXURE - IV



M/s. ZF Commercial Vehicle Control Systems India Limited Under CSR initiatives

IoT components worth of Rs.7,16,102/-

(Rs.14,00,000/- cost of Smart factory working models)

Space Allocated – 3500 Sq.ft

Centre of Excellence for Smart Factory Initiatives

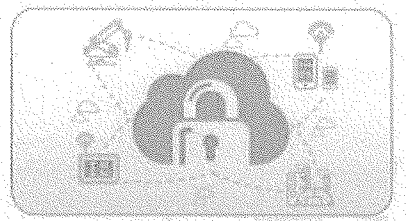
Scheduled to be inaugurated
On 23th March 2023
at 10.30 AM

INDUSTRIAL CYBERSECURITY

With the developments in the Internet of Things (IoT) and industry, new authentication and authorization mechanisms are used to ensure such communications are secure and reliable with end-to-end protection of industrial assets. Automation Partners, System Integrators, Application and Technology Providers are providing special degree of control mechanisms such as encryption, edge device hardening, authentication, interface security, secured communication, data protection, and data privacy for securing the industrial IoT ecosystem.

Value drivers

- Protection of sensitive data generated from industrial assets
- Monitor and prevent against malicious activity



INDUSTRIAL INTERNET OF THINGS (IIoT)

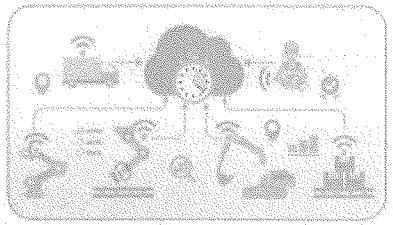
A network of interconnected devices embedded in physical objects in the shop floor sensing, measuring and monitoring capabilities from various things can translate physical processes into digital information, thereby creating real-time insights by connecting devices, people and processes together. The ecosystem includes sensors, edge devices, communication protocols, connectivity and application platform.

Value drivers

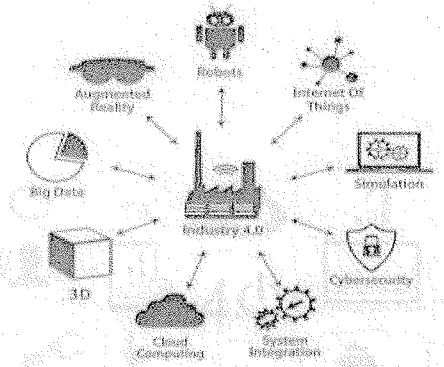
- Operational visibility
- Improved efficiency
- Enables better decision making

Applications

- Machine condition monitoring
- Remote diagnostics
- Track and trace asset location



Focus Area



AUGMENTED REALITY (AR)

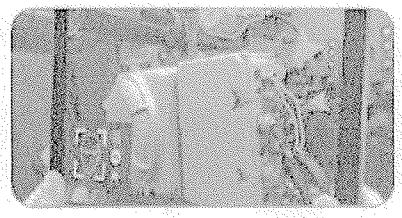
Virtual objects are digitally overlaid on physical objects with contextual information via smart phones, tablets, heads-up displays or AR glasses which can significantly improve workforce productivity. Augmented Reality subtly blends reality and virtual information, which makes it possible to explain complex phenomena while relating them to the scale of the real environment. What makes it particularly interesting is its interactive nature, which opens the door to a unique and unprecedented productive creativity.

Value drivers

- Improve workforce productivity and effectiveness
- Reduction in mishaps, rework, and waste
- Improved field service productivity

Applications

- Guided repair & maintenance
- Remote assistance
- Employee training



CLOUD COMPUTING

With the developments in the Internet of Things (IoT) and robotics, cloud computing provides virtualized resources and services with high reliability and scalability. It helps to store, process and analyze data from industrial devices with computing, storage and networking capabilities over the Internet.

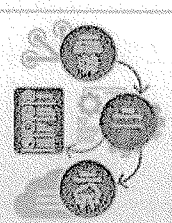
Placing computing and analytics capabilities close to the machines and production processes makes the case for edge computing, which significantly reduces latency times and enables distributed intelligence across production processes.

Value drivers

- Optimize business processes
- Maximize operational efficiency
- Improves reliability and security

Applications

- Predictive maintenance
- Remote monitoring and controlling
- Cloud-based manufacturing systems



SIMULATION

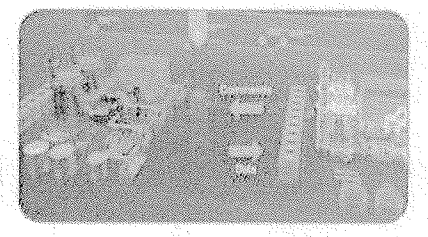
Simulation application includes hybrid modeling (digital twins), simulation based training, and designing connectivity network simulation). A digital twin is a full lifecycle dynamic digital replica of a physical or a logical object like motors, tools, production lines, factories, logistic processes, etc., in the real world. With a digital twin, one can describe, simulate and predict the state of its real-world counterpart based on the analytical models derived from historical and real-time data.

Value drivers

- Real-time optimization & decisions
- Continuous data driven optimization
- Quick changeovers
- Enable flexibility and agility

Applications

- Manufacturing simulation
- Product redesign
- Logistics and capacity planning

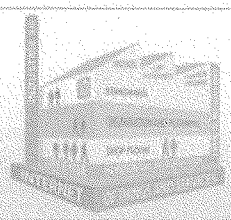


HORIZONTAL / VERTICAL INTEGRATION

Vertical integration in Industry 4.0 aims to do together all logical layers within the organization from the production floor up through R&D, quality assurance, product management, IT, sales & marketing. With horizontal integration, Industry 4.0 envisions connected networks of cyber-physical & enterprise systems that introduce unprecedented levels of automation, flexibility & operational efficiency into production processes. It takes place at several levels such as production floor using machine-to-machine communication, across multiple production facilities and across the entire supply chain.

Value drivers

- Seamless information flow
- Enables data-driven decision
- Improves flexibility and agility in the changing market signals



ADDITIVE MANUFACTURING

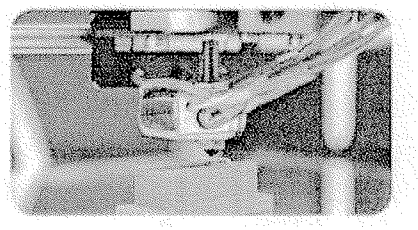
Additive Manufacturing (AM), broadly known as 3D printing, is transforming how products are designed, produced, and serviced. It has the potential to facilitate object-driven production of smaller components and to reduce the length of the manufacturing process of the product. The trend towards customized products is driving the need to manufacture just as many items, but in smaller and smaller quantities, even down to an individualized product.

Value drivers

- Offer just-in-time and on-demand
- High degree of flexibility
- Improved MRO service productivity

Applications

- Spare parts management
- Warehouse & logistics



Focus Area

Focus Area

AUTONOMOUS ROBOTS

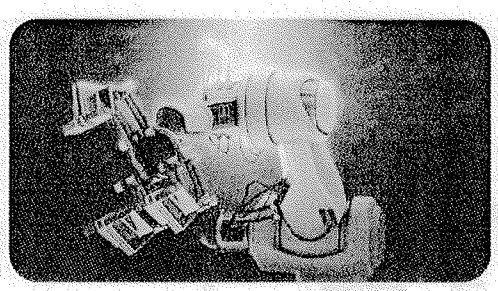
Autonomous Mobile Robots (AMRs) and various applications of robotics (collaborative robots, robotic arms, etc.) can intelligently automate low value, repetitive processes. Autonomous robots can recognize and learn from their surroundings and make decisions independently using AI and sensor technology. Advanced collision avoidance capabilities can enable robots to seamlessly move around humans and moving objects without causing any causalities.

Value drivers

- Increase productivity and efficiency
- Reduce error and re-work
- Highly flexible and transparent material flow

Applications

- Intralogistics
- Warehouses
- Assembly



BIG DATA ANALYTICS

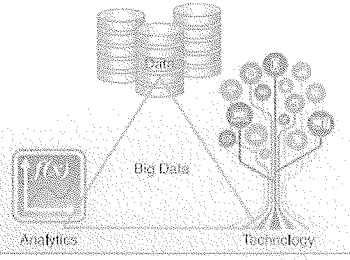
Business processes, production shop floor and supply chain generates huge volume of structured & unstructured data every day. Machine learning, Artificial Intelligence, Deep Learning, Analytical Models and techniques can derive interesting insights to optimize business processes, improve production performance, quality and delivery metrics. Big data analytics environment includes data processing and management tools, data storage and analytics engine can transform the journey from descriptive analytics towards cognitive analytics (autonomous) to realize data-driven business decisions.

Value drivers

- Identify hidden inefficiencies
- Enables data-driven decision making
- Improve business performance

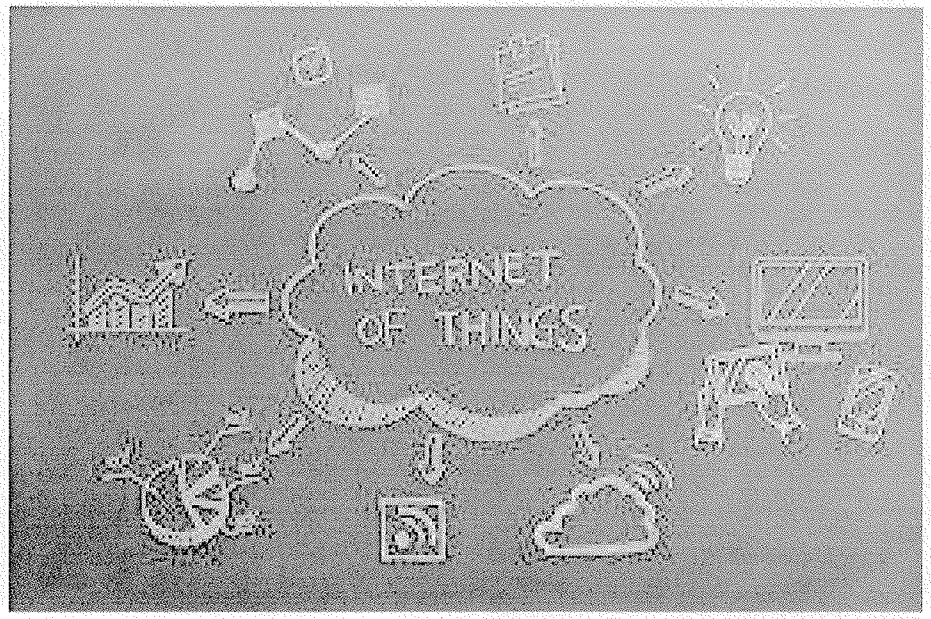
Applications

- Predictive maintenance
- Predictive quality
- Logistics route optimization
- Anomaly detection



- As per the regulation R21, the office of industry relations and department of ECE constituted a faculty committee to come with the courses of total 18 Credits under programme elective and Independent learning 13 Credits (2 Minor projects (4 Credits) and Major project 9 credits) focusing on IoT.

- The ZF agreed to support course delivery and offer both minor and major projects at their industry.



Minimum Credits required in Course Categories (R21):

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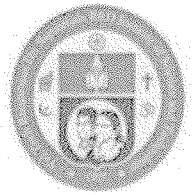
Course Category	Minimum Credits Required
Foundation Courses	56
Programme Core	58
Special Elective	18
Open Elective	12
Independent Learning	14 (13)
Industry / Higher Institute Learning Interaction	2
Professional Proficiency Courses	4
Total	**164**

Process

- Faculty Committee formulated
- To be approved by BoS
- Final Approval 42th ACM

List of Credit Courses Offered:



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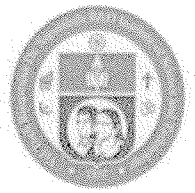
Levels	Topic to be Discussed	Week	Credit Offered
Level 1:	Introduction to IoT, Basic Concepts and Applications	Week-1	Credit-1
Level 2:	Introduction to Sensors and Actuators	Week-2	
Level 3:	Introduction to Wireless Networks	Week-3 & 4	
Level 4:	Introduction to Cloud	Week-5 & 6	Credit-2
Level 5:	Real time IoT Project	Week-7 & 8	

List of Credit Courses Offered:



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LEVEL	Week	Lecture Topics	Lab Exercises	Hardware Used
LEVEL 1	0	Introduction to IOT, Basic Concepts and Applications	Introduction	IoT Hardware - Sensors, Actuators and Development Boards
	1	Introduction to Hardware Software used in IOT	Write a program that controls an LED and makes it blink.	
			Write a program to read the switch status and turn on or off the LED.	
			Write a program that controls an Seven Segment LED and makes it display "HELLO".	
			Write a program that controls an 16*2 LCD and display "VELTECH UNIVERSITY".	
LEVEL 2	2	Introduction to Sensors and Actuators	Introduction to different Sensors and Actuators	IoT Hardware - Sensors, Actuators and Development Boards
		Interfacing Different Sensors, Actuators with Arduino / Raspberry Pi	Write a program to interface a sensor to the GPIO pins of the Arduino / Raspberry Pi.	
			Write a program to control the output device by accessing the sensor using Arduino / Raspberry Pi.	

List of Credit Courses Offered:

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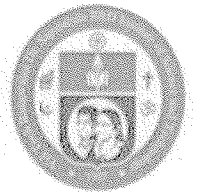
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

LEVEL 3	3	Introduction to wireless Networks	Introduction to diferent Wireless Communicating Hardwares	IoT Hardware - Sensors, Actuators, Development Boards and Wireless Modules
		Interfacing Bluetooth, Zigbee with Arduino / Raspberry Pi	Write a program to transmit the data from one device to another device by using Bluetooth or Zigbee.	
		Interfacing GSM, GPS with Arduino / Raspberry Pi	Write a program to transmit the data from one device to another device by using GSM and GPS.	
	4	Interfacing RF transmitter and receiver 433 MHZ with Arduino / Raspberry Pi	Write a program to transmit the data from one device to another device by using RF Modules.	
		Interfacing Z Wave RF Modules with Arduino / Raspberry Pi	Write a program to transmit the data from one device to another device by using Z Wave.	
LEVEL 4	5	Introduction to Cloud	Introduction to IFTTT, MQTT and BLYNK	IoT Hardware - Sensors, Actuators, Development Boards and Wireless Modules
		Introduction to IOT cloud Integration	Write a program to measure the data from remote location by using Cloud Integration.	
	6	Interfacing Different Sensors, Actuators with Cloud	Write a program to measure the data from remote location and control the device by using mobile phone.	

List of Credit Courses Offered:

LEVEL 5	**7 & 8**	Real time IOT Project	IOT based Asset Tracking (Indoor Position)	IoT Hardware - Sensors, Actuators, Development Boards, Wireless Modules and Industrial Standard Devices
			IOT based Logistics (Location Technologies)	
			IOT based Supply Chain Management (Cellular Based LPWAN Technologies)	
			IOT based Raw Material Environment Monitoring (Non- Cellular Based LPWAN Technologies)	
			IOT based Voice Controlled Devices	
			IOT based Text Controlled Home Appliances	
			Smart Agriculture System	
			Health monitoring by Wearable Devices	
			Smart Car Parking System	
			Smart Environmental Monitoring System	

Materials Purchased details(IoT- Components)



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

S. No	Name of the Supplier	Amount (Rs.)
1	ROBU.IN	3,67,608.20
2	AMAZON	1,68,103.00
3	ROBU.IN	36,130.00
4	DELIGHT	1,44,562.00
TOTAL		7,16,403.20

Some of the working models were made by Students

- Home Automation System Using Google Assistant / Alexa
- Temperature and Humidity Monitoring in Food Quality Service Control
- Smart Energy Monitor using IoT
- Home Automation Using Local Web Server
- Monitor and Diagnose the performance of a Three-Phase Induction Motor
- Security System Using IoT

Commercial Vehicle Solutions

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R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

BEARING PRESS STATION

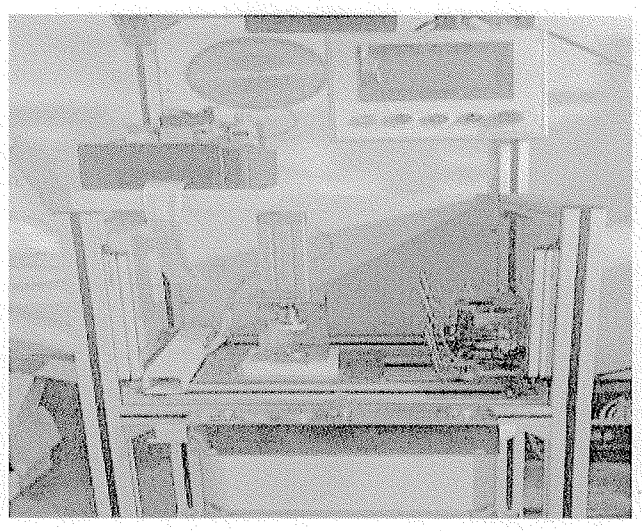
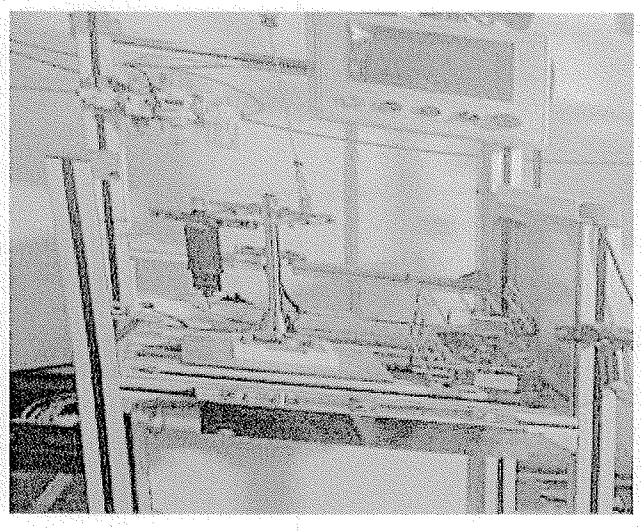
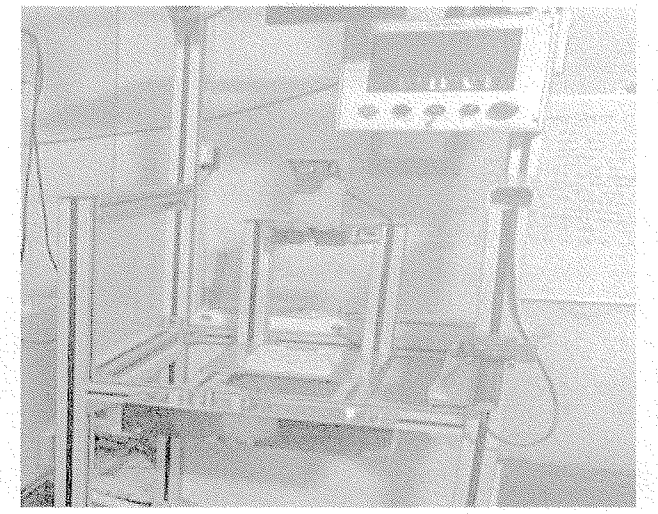


PLATE TIGHTENING STATION



FINAL INSPECTION



Bearing Assembly Line: (Rs.14,00,000/-)

Commercial Vehicle Solutions

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

Proposed Skill Development Initiatives

- One week Workshop to our affiliated Engineering college students .
- Polytechnic students - to conduct one week Workshop.
- School students - two days Workshop.

Other Industry Partner

Webyfy

WEBYFY IOT

Webyfy IoT Has carried out extensive work in automatic generation of IoT solutions. The intelligent framework REACH consists of scores of hardware and hundreds of software modules. It has the capability to create multitudes of applications in multiple domains using its configuration engine.

WEBYFY AUTOMATION

Webyfy Automation is engaged in development of systems for controlled micro movement through R&D effort. This facilitates development of engravers for multiple mediums, 3D printers, stacking robots, dispensing machines etc. Webyfy Automation has excellent mechanical design skills used by the sister concern.

Thank you

ANNEXURE-V

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

e-content course				
S.No	Name of the Department	Course Code	Course Name	Handling Faculty Name
1	Mechanical Engineering	10212ME128	Artificial Intelligence system in Manufacturing	Dr. Sachin Salunke
		10212ME140	Fundamentals of Machine Learning	Dr. Kanak Kalita
		10211ME105	Applied Engineering thermodynamics	Dr. P. Sivamurugan
2	Biomedical Engineering	1151BM109	Microprocessor and\\ Microcontrollers	Dr. N.M. Masood Banu,Dr. A. Paramasivam
		1151BM111	Biomedical\\ Instrumentation	Dr. Thiyam Deepa\\ Beeta\\ Ms. Shelishiya
3	Biotechnology	1151BT111	Immunology and\\ Immunotechnology	Dr. V.R. Manoj
		1152BT120	Biopharmaceutical\\ Technology	Ms. V. Sugumari
4	Electronics and\\ Communication Engineering	10212ECE113	Wearable Electronics	Dr. E.D.Kanmani Ruby
		1152EC154	Machine Learning	Dr. S. Jana
5	Electrical and Electronics\\ Engineering	1151EE104	AC Machines	Dr. K. karunanithi
		1151EE102	Electronic Circuits	Dr. Hari Charan\\ Nannam
		10210PH101	Semiconductor Physics	Dr. S.Mani Naidu, Prof./Physics
		10210CS102	Computational Thinking	Dr. Suguna, Prof./CSE
6	Management	30211MG111	Financial Management	Dr. Thandayuthapani
		30211MG116	Business Strategy	Mrs. Ms.Felisiya
		U6GBA37	Total Quality Management	Mrs. Susan Jayaseeli
		80211GE113	Cost Accounting	Dr. Gunasekeran.K
7	Law	90181BL122 / 90181BC122	Law of Evidence	Mr. Hari Harasudhan
		90181BL401 / 90181BC401	Alternative Dispute Resolution	Mr. Hari Harasudhan
8	School of Media Technology and Communication	50211VC208	Photography	Mr.FEROZ KHAN, Asst. Prof.
		50212MM205	Augmented Reality Virtual Reality	Ms. Renuga Varshini, Asst. Prof.

Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology

Office of Quality Assurance

Action Plan for the Academic Year 2022-23

Sl. No.	Details	Target	Person(s) Responsible
1	Percentage of new courses introduced out of the total number of courses across all programmes	10 to 15 percentage per year	Dean (Academics) & School Deans
2	Number of certificate / value-added courses / Diploma Programme/ online courses like MOOCs / SWAYAM / e-Pathshala/ NPTEL etc. where the students of the institution have enrolled and benefitted **(Note: No repeat count of courses will be considered)**	Atleast one course (minimum of30 contact hours) per single intake (60 students) per Semester	School Deans & HoDs concerned with the support of Dean (IND) & Dean (CC)
	Students completed in value-added courses	65 to 70 percentage of studentsper year	
3	Percentage of Programs that has components of field projects/ research projects/ internships	Mandatory for all the programs	School Deans in consultation with Dean (IND), Dean (CC) & Dean (INT)
	No. of students undertaking internship	50 percent of final year students per year	
4	Syllabi revision (program-wise) followed by BoS approval	Every Semester	Dean (Academics) & School Deans
	Feedback on design of curriculum/ review of syllabi from various stakeholders (Collection, Analysis, Action Taken & Communication to relevant body and hosting in the institution website)	Once a year	
5	Enrollment Percentage	Sanctioned seats to be filled in all the programs	Admission Office
6	Admission based on reservation to be reviewed	Community certificate should be collected from all the admitted students and to be analyzed as soon as the completion of admission	Registrar and Admission Office
7	Student - Full time teacher ratio	15:1 for Engineering and Technology 20:1 for Law 25:1 for Arts and Science	Registrar, HR, HoDs & School Deans Concerned
8	Percentage of full-time teachers appointed against the number of sanctioned posts	BoM approval should be obtained every year before start of the Academic Year	Registrar
9	Percentage of full-time teachers with Ph.D. qualification	Increase of 20 percent per year after reaching 100 percent to be sustained	Registrar, HR, HoDs & School Deans Concerned
10	Teaching experience of full-time teachers	Experience certificate of the previous institution should be maintained properly	Registrar and HR

ANNEXURE - 15

Sl. No.	Details	Target	Person(s) Responsible
11	Declaration of Results	Within 15 days from the date of last examination	CoE
12	Percentage of student complaints/ grievances about evaluation against total number of students appeared in the examinations	Less than one percentage	
13	Review of pass percentage to achieve better graduation	Once a Semester	CoE/ School Deans
14	Online Student Satisfaction Survey regarding the teaching-learning process	Online survey to be conducted, analysed and report to be hosted in the institution website	Dean (QA)
15	Seed money to faculty members **(average per year; INR in Lakhs)**	60 Lakh per year (Amount to be split based on the faculty strength of the departments concerned)	School Deans in consultation with Dean (R&D)
16	Percentage of faculty members receiving national/ international fellowship/ financial support by various agencies for advanced studies/ research	25 percentage of total faculty members every year	School Deans in consultation with Dean (R&D), Dean(INT)
17	Percentage of JRFs, SRFs among the enrolled PhD scholars in the institution	75 percent per year	Dean (R&D)
18	Grants for research projects sponsored by the non- government sources such as industry, corporate houses,international bodies, endowments, Chairs in the institution	100 Lakh every year	School deans in consultation with Dean (R&D), Dean (IND), Dean (INT) & Dean (Alumni)
	Total Grants for research projects sponsored by the government agencies	300 Lakh every year	School deans in consultation with Dean (R&D)
19	Number of research projects per faculty funded by government and non-government agencies	50 percent of the faculty count per department	
20	Number of awards / recognitions received for research/innovations by the institution	5 to 10 per year	All Deans
	Number of awards/ recognitions received for research/innovations by the research scholars	5 to 10 percentage of total scholars	Dean (R&D) & Dean (IND) with the support School Deans
	Number of awards/ recognitions received forresearch/ innovations by the teachers	5 percentage of total faculty members	Dean (R&D) with the support of Department Heads concerned, Dean (IND)
	Number of awards/ recognitions received forresearch/ innovations by the students	50 per year based on the student strength in the department	
21	Number of Patents filed	20 to 25 per year (based on the faculty strength in the department)	School deans in consultation with Dean (R&D) & Dean(IND)
22	Number of Ph.Ds awarded per recognized guide	Concentration on full-time Ph.D. and uploading thesis in the shodhganga	Dean (R&D) & CoE

Sl. No.	Details	Target	Person(s) Responsible
23	Number of research papers in the Journals	2 per faculty per year	School Deans in Consultation with Dean (R&D)
24	Number of books and chapters in edited volumes/ books published and papers in national/ international conference Proceedings	2 per faculty per year	
25	E-content development by faculty members for (e-PG- Pathshala, CEC (Under Graduate), SWAYAM, other MOOCsplatform, Any other Government Initiatives, Institutional LMS, etc.)	Minimum two courses per department per semester (Excluding Institutional LMS)- maximum number shall vary based on the faculty count	School Deans & HoDs Concerned with the support of School of Media Technology and Communication & Dean (Academics)
26	Number of citations	Measures to be taken for improvement	School Deans in Consultation with Dean (R&D)
27	h-Index of the University	Measures to be taken for improvement	
28	Amount generated from consultancy and corporate training	Rs. 50 Lakh every year	School Deans in consultation with Dean (IND), Dean (R&D)
29	Number of extension and outreach programs organized by the institution through NSS	20 per year [(2*5 per semester)*2]	School deans in consultation with Dean (CA)
	Number of extension and outreach programs organized by the institution through NCC	18 per year [(3*3 per semester)*2]	
	Number of extension and outreach programs organized by the institution through other than NCC and NSS	25 per year	
	Students participation in extension activities (NSS, NCC & Government and Government recognised bodies)	70 to 75 percentage of total students	
30	Number of MoUs with institutions/ industries in India andabroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research	25 to 30 per year	Dean (IND), Dean(INT), Dean (CC)
31	Percentage of expenditure excluding salary, for infrastructure development and augmentation	Minimum of 40%	Registrar and Finance Officer
32	Percentage expenditure for purchase of books/ e-books and subscription to journals/e-journals excluding salary	Minimum of 10%	Chief Librarian and Finance Officer
33	Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary	Minimum of 30%	Registrar and Finance Officer
34	Percentage of students benefited by scholarships and free ships provided by the Institution, Government and non-government bodies, industries, individuals, philanthropists	Proper data to be maintained	Scholarship incharge shall be nominated under the guidance of Registrar

Sl. No.	Details	Target	Person(s) Responsible
35	Number of Capacity development and skills enhancement activities for improving students capability **(Soft skills)**	Mandatory for all the departments (minimum 3 per semester)	School Deans, HoDs concerned, Dean (CC)
	Number of Capacity development and skills enhancement activities for improving students capability **(Language and Communication skills)**		School Deans, HoDs concerned, HoD (English)
	Number of Capacity development and skills enhancement activities for improving students capability **(Life skills - Yoga, physical fitness, health and hygiene)**		School Deans, HoDs concerned, Dean (CA)
	Number of Capacity development and skills enhancement activities for improving students capability **(Awareness of trends in technology)**		School Deans & HoDs concerned in consultation with Dean (IND)
36	Number of students placed	70 to 80 percent of students against graduation	Dean (CC) with the support of School Deans
		60 to 70 percent against total number of students in final year	
	Placement in IT & ITES	65%	
	Placement in Core Companies	15%	
	Dream (between 5 and 10 LPA) and Super Dream offers (Above 10 LPA)	20%	
37	Percentage of final year students progressed to higher education	15 to 20 percent	Dean (INT) with the support of School Deans
38	Measures to organize events like (i) guidance for competitive examinations and (ii) career counselling		
	Number of students benefitted by guidance for competitive examinations and career counselling offeredby the institution	75 to 80 percentage of totalstudents	
	Number of students appearing in state/ national/ international level examinations (eg: IIT-JEE/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Stategovernment examinations, etc.))	10 percentage of the final year students	
	Number of students qualifying in state/ national/ international level examinations (eg: IIT-JEE/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Stategovernment examinations, etc.))	2 percentage of the final year students	
39	Facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)	As per the council/ commission requirement	School deans in consultation with Dean (CA)

Sl. No.	Details	Target	Person(s) Responsible
	Number of awards/ medals won by students for outstanding performance in sports/ cultural activities at inter-university/ state/ national/ international events (award for a team event should be counted as one)	50 per Year (based on the students strength)	
	Number of sports and cultural events/ competitions organised by the institution	Sports 10 events per semester Cultural 5 events per semester	
40	Alumni contribution	20 Lakh per year	Dean (Alumni)
41	Percentage of faculty members provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies	50 to 60 percentage of totalfaculty members	School Deans, HoDs concerned & Dean (HRDC)
42	Percentage of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes	Atleast one program (More than five days) per year per faculty	
43	Total number of professional development /administrative training Programmes organized	• International Conferences – 1 per School per Year • FDPs (2 weeks) – 1 per semester per School • Seminar/ workshops/ webinars etc. – minimum 1 per semester and based on department strength • Based on the expertise required in the department/ School event has to be conducted • Seminar/ Workshops/ Webinars etc. should be more focus on employability skills by involving experts from industry/ academia such as IIT/ NIT/ IISc etc. • FDPs in emerging areas • International Conference publications should be indexed in scopus/IEEE/Springer/ACM/ other relevant bodies related to branches, Quality Conferences only	
44	Funds/ Grants received from government bodies/ non-government for development and maintenance of infrastructure	20 Lakh per Year	School Deans (MODROBS), Dean (R&D), Dean (IND) & Dean (Alumni)

Sl. No.	Details	Target	Person(s) Responsible
45	Conferences, Seminars, Workshops on quality	3 to 4 per year	Dean (QA)
	Conduct of Academic and Administrative Audit	Once in a year	
	Orientation program for the newly joined faculty members	As per the requirement	Dean (HRDC)
46	Details of applications received for admission to be maintained	Entrance Examination is mandatory for all the admitted students	CoE & Admission Head
47	Courses having focus on employability/ entrepreneurship/skill development	(QIM)	School deans in consultation with Dean (Academics), Dean (CC), Dean (IND), Dean (INT)
48	Facilities for teaching - learning, viz., classrooms, laboratories, computing equipment, etc.	As per the council/ commission requirement	School Deans
49	No. of classrooms with Smart Board facility	10 per year (Law-1, Media-1, Management-1, CSE-3, ECE-2, SoMC-1 & FME-1)	
50	Number of awards received by the Institution from Government/ Government recognised bodies in recognition of the extension activities carried/ undertaken	Minimum 5 per year	School deans in consultation with Dean (CA)
51	Number of awards received by the teachers from Government/ Government recognised bodies in recognition of the extension activities carried/ undertaken	Minimum 10 per year (based on students strength in the department)	
52	Number of awards received by the students from Government/ Government recognised bodies in recognition of the extension activities carried/ undertaken	30 per year	
53	Number of workshops/ seminars on Researchmethodology, Intellectual Property Rights (IPR), entrepreneurship, skill development	50 per year	School Deans in consultation with Dean (IND), Dean(R&D), DRS, Dean (INT)
54	Number of Collaborative activities with other institutions/research establishment/ industry for research and academic development of faculty and students	150 to 200 per year	Dean (IND), Dean (R&D), Dean (Academics), Dean (INT), School Deans
55	Conduct of internal and external financial audits	Two times per year	Registrar and Finance Officer
56	Student Exchange (Outbound)	60 per year	Dean (INT) in consultation with School Deans
57	Student Exchange (Inbound)	10 per year	
58	Faculty Exchange (Outbound)	5 per year	

Sl. No.	Details	Target	Person(s) Responsible
59	Faculty Exchange (Inbound)	65 per year	
60	No. of students undertaking Industrial Visit	Minimum of one visit per yearfor every single intake (60 students) Industrial Visit has to be arranged related to focused/emerging areas of concern department	School Deans & HoDs Concerned in consultation with Dean (IND), Dean (CC)
61	Measures for slow learners and fast learners	Slow Learners/Fast Learners has to be identified in the beginning and Continuous Improvement process has to be done. Based on the students learning level, training classes need to be conducted. Relevant documents have to be maintained. Fast Learners: Career guidance, 6 to 9 months/ abroad Internship, paper publication etc.	School Deans & HoDs Concerned
62	Implementation of Active Learning Methods in Teaching-Learning process	Minimum of two topics per course per semester	
63	No. of classrooms with LCD projector	75 percentage of total classrooms	School Deans, HoDs concerned, HMS
64	Conduct of all the statutory and non-statutory body meetings	As per the frequency	Member Secretaries Concerned
65	Usage ICT Tools for relevant courses	Minimum of two topics per course per semester	School Deans & HoDs Concerned
66	Innovative model developed for teaching learning purpose in terms of animation/ model / charts etc. must be unique	Atleast 4 courses per year	
67	Faculty industry training (Minimum of one-week duration)	Minimum 3 faculty per department (based on faculty strength in the department)	
68	Faculty and Students Start-ups	Based on students and faculty strength in the department	School Deans with the support of Dean (IND)
69	CO-PO attainment, continuous improvement reflection in the courses, no. of courses involved in CO/PO attainment	Mandatory for all the departments	School Deans & HoDs Concerned
70	Gender Sensitization programs	Minimum of one per semester per department	School Deans & HoDs Concerned with the support of SPARSH incharge
71	Students council activities	Minimum of one per semester per department	School Deans & HoDs Concerned with the support of Students council incharge

Sl. No.	Details	Target	Person(s) Responsible
72	Industry collaborated Laboratories	One laboratory in two years	Dean (IND) with the support of School Deans
73	Mentor – Mentee meeting during free time	Each semester minimum 6 meetings has to be conducted, minutes meeting with follow-up action has to be submitted by each department	School Deans & HoDs Concerned
74	Semester Registration/ Course Registration	100 percent of admitted students	School Deans, HoDs Concerned & Dean (Academics)

ANNEXURE - VII

NAAC

Institutional Assessment and Accreditation

(Effective from July 2017)

Accreditation - (Cycle: 2)

VEL TECH RANGARAJAN DR. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY, Chennai, Tamil Nadu, 600062

Track ID : TNUNGN60039

AISHE-ID : U-0489

Visit dates : 31 - 01 - 2023 to 02 - 02 - 2023

Grade Sheet

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

P.O. Box No. 1075, Nagarbhavi, Bengaluru - 560 072, INDIA

Name of the Institution: VEL TECH RANGARAJAN DR. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY
Type of the Institution: University
Dates of Visit: 31 - 01 - 2023 to 02 - 02 - 2023

No	Criteria	Weightage (W_i)	Criterion-wise weighted Grade Point ($CrWGP_i$)	Criterion-wise Grade Point Averages ($CrWGP_i / W_i$)
1	Curricular Aspects	150	580	3.87
2	Teaching-learning and Evaluation	200	645	3.23
3	Research, Innovations and Extension	250	875	3.5
4	Infrastructure and Learning Resources	100	365	3.65
5	Student Support and Progression	100	337	3.37
6	Governance, Leadership and Management	100	365	3.65
7	Institutional Values and Best Practices	100	361	3.61
	Total	$\sum_{i=1}^{7} (W_i) = 1000$	$\sum_{i=1}^{7} (CrWGP_i) = 3528$	**3.53**

Institutional CGPA $= \sum_{i=1}^{7} (CrWGP_i) / \sum_{i=1}^{7} (W_i) = 3528 / 1000 = 3.53$

Grade: A++

Name of the Institution: VEL TECH RANGARAJAN DR. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY
Type of the Institution: University
Dates of Visit: 31 - 01 - 2023 to 02 - 02 - 2023

No	Criteria and Key Indicators	Key Indicator Weightage (W_i)	Key Indicator Wise Weighted Grade Points $(KIWGP)_i$
Criterion 1: Curricular Aspects			
1.1	Curriculum Design and Development	50	180
1.2	Academic Flexibility	50	200
1.3	Curriculum Enrichment	30	120
1.4	Feedback System	20	80
Total		**$\sum W_1$=150**	**$\sum (KIWGP)_1$ =580**
Calculated $CrGPA_1$ = $\sum (KIWGP)_1$ / $\sum W_1$ = 580 /150 = 3.87			
Criterion 2: Teaching-learning and Evaluation			
2.1	Student Enrollment and Profile	10	35
2.2	Catering to Student Diversity	20	70
2.3	Teaching- Learning Process	20	74
2.4	Teacher Profile and Quality	50	90
2.5	Evaluation Process and Reforms	40	150
2.6	Student Performance and Learning Outcomes	30	110
2.7	Student Satisfaction Survey	30	116
Total		**$\sum W_2$=200**	**$\sum (KIWGP)_2$ =645**
Calculated $CrGPA_2$ = $\sum (KIWGP)_2$ / $\sum W_2$ = 645 /200 = 3.23			
Criterion 3: Research, Innovations and Extension			
3.1	Promotion of Research and Facilities	20	72
3.2	Resource Mobilization for Research	20	80
3.3	Innovation Ecosystem	30	120
3.4	Research Publications and Awards	100	300
3.5	Consultancy	20	75
3.6	Extension Activities	40	148
3.7	Collaboration	20	80
Total		**$\sum W_3$=250**	**$\sum (KIWGP)_3$ =875**
Calculated $CrGPA_3$ = $\sum (KIWGP)_3$ / $\sum W_3$ = 875 /250 = 3.5			
Criterion 4: Infrastructure and Learning Resources			
4.1	Physical Facilities	30	110
4.2	Library as a Learning Resource	20	70
4.3	IT Infrastructure	30	115

No	Criteria and Key Indicators	Key Indicator Weightage (W_i)	Key Indicator Wise Weighted Grade Points $(KIWGP)_i$
4.4	Maintenance of Campus Infrastructure	20	70
Total		**$\sum W_4$=100**	**$\sum (KIWGP)_4$ =365**
Calculated $CrGPA_4$ = $\sum (KIWGP)_4 / \sum W_4$ = 365 /100 = 3.65			
Criterion 5: Student Support and Progression			
5.1	Student Support	30	120
5.2	Student Progression	40	130
5.3	Student Participation and Activities	20	65
5.4	Alumni Engagement	10	22
Total		**$\sum W_5$=100**	**$\sum (KIWGP)_5$ =337**
Calculated $CrGPA_5$ = $\sum (KIWGP)_5 / \sum W_5$ = 337 /100 = 3.37			
Criterion 6: Governance, Leadership and Management			
6.1	Institutional Vision and Leadership	10	30
6.2	Strategy Development and Deployment	10	35
6.3	Faculty Empowerment Strategies	30	116
6.4	Financial Management and Resource Mobilization	20	74
6.5	Internal Quality Assurance System	30	110
Total		**$\sum W_6$=100**	**$\sum (KIWGP)_6$ =365**
Calculated $CrGPA_6$ = $\sum (KIWGP)_6 / \sum W_6$ = 365 /100 = 3.65			
Criterion 7: Institutional Values and Best Practices			
7.1	Institutional Values and Social Responsibilities	50	191
7.2	Best Practices	30	90
7.3	Institutional Distinctiveness	20	80
Total		**$\sum W_7$=100**	**$\sum (KIWGP)_7$ =361**
Calculated $CrGPA_7$ = $\sum (KIWGP)_7 / \sum W_7$ = 361 /100 = 3.61			
Grand Total		**1000**	**3528**

Institutional CGPA = $\sum_{i=1}^{7} (CrWGP_i) / \sum_{i=1}^{7} (W_i)$ = 3528 /1000 = 3.53