# RAJALAKSHMI ENGINEERING COLLEGE,

(An Autonomous Institution) - Affiliated to Anna University
THANDALAM, CHENNAI-602 105

# Minutes of the 20<sup>th</sup> Academic Council Meeting held on 06.07.2024 at 02.30 pm in the Conference hall

#### AGENDA

| S.No.        | Items   |  |  |
|--------------|---|--|--|
| AC. No.20.01 | Action taken on the minutes of the 19th Academic council meeting held on 23.8.2023  |  |  |
| AC.No.20.02  | Curriculum and syllabus framed for III and IV Semesters, for the 19-UG and 9-PG programmes, based on Regulations 2023 and syllabus for semesters V to VIII for 2 UG programs based on Regulations 2019(Revised) |  |  |
| AC.No.20.03  | Revision of Curriculum and syllabus for M.Tech. Data Science with<br>the support of L&T Mindtree from 2024 batch onwards  |  |  |
| AC.No.20.04  | Proposal to increase the number of online courses for enabling credit transfer in both Regulation 2023 and Regulation 2019 (Revised)  |  |  |
| AC.No.20.05  | Increase in the intake in 6 UG programmes from the academic year 2024-25  |  |  |
| AC.No.20.06  | Reporting the recent developments/Achievements after the 19 <sup>th</sup> Academic Council Meeting  |  |  |
| AC.No.20.07  | Any other Points  |  |  |

# The following members were present:

| S.No. | Name of the Academic Council  Member   | Category Principal & Chairman |  |
|-------|--|-------------------------------|--|
| 1.    | Dr. S.N.Murugesan  |                               |  |
| 2.    | Dr.S.R.Devadasan Professor Department of Production Engineering PSG College of Technology Peelamedu, Coimbatore – 641 004        | University<br>Representative  |  |
| 3.    | Dr.S.Balasivanandha Prabu Professor and Head Department of Mechanical Engineering CEG Campus, Anna University, Chennai – 600 025 | University<br>Representative  |  |



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| 4.  | Dr. Suceendran K.M. Techno HR Leader, Digital Evangelist, Head - Academic Alliances TCS, Chennai | Industry Representatives |  |
|-----|--|--------------------------|--|
| 5.  | Dr.C.R.Muthukrishnan<br>Advisor, Rajalakshmi Institutions  | Academician              |  |
| 6.  | Dr.M.Subbiah,<br>Professor Emeritus, Department of<br>Electrical and Electronics Engineering     | Academician              |  |
| 7.  | Dr. S.P.Srinivasan<br>Vice Principal   | Member                   |  |
| 8.  | Dr. M. Muthusamy<br>COE and HoD H&S  | Member                   |  |
| 9.  | Dr.M.Palanivelan<br>Director (PG studies)  | Member                   |  |
| 10. | Dr. Suresh Chandra Khandai<br>HOD, Aeronautical Engineering                                      | Member                   |  |
| 11. | Dr.J.M.Gnanasekar<br>Professor & HOD<br>Artificial Intelligence and Data Science                 | Member                   |  |
| 12. | Dr.K.Sekar Professor & HOD Artificial Intelligence and Machine Learning                          | Member                   |  |
| 13. | Dr. K. Bhaskar<br>Professor & HOD, Automobile<br>Engineering                                     | Member                   |  |
| 14. | Dr.S.Rajkumar<br>Professor &HOD, Biomedical<br>Engineering                                       | Member                   |  |
| 15. | Dr. M.Sankar<br>Professor & HOD, Biotechnology   | Member                   |  |
| 16. | Dr. T.R.Sundararaman Professor & HOD, Chemical Engineering                                       | Member                   |  |
| 17. | Dr. S.Geetha<br>Professor & HOD, Civil Engineering   | Member                   |  |
| 18. | Dr.K.Devaki<br>Professor & HOD, Computer Science<br>and Business System                          | Member                   |  |
| 19. | Mr.S.Gunasekar<br>AP (SG) & For HOD, Computer<br>Science & Design                                | Member                   |  |
| 20. | Dr. K.Ananthajothi Professor & For HOD, Computer Science & Engineering                           | Member                   |  |





| 21. | Mr.Benedict Jayaprakash Nicholas<br>HoD - CSE (Cyber Security)                    | Member                   |  |
|-----|---|--------------------------|--|
| 22. | Dr.L.Bhagyalakshmi<br>Professor & HOD, Electronics &<br>Communication Engineering | Member                   |  |
| 23. | Dr. S.Ramareddy Dean & For HOD, Electrical & Electronics Engineering              | Member                   |  |
| 24. | Dr.K.Ramalakshmi<br>Professor & HOD, Food Technology                              | Member                   |  |
| 25. | Dr. Priya Vijay<br>Professor & HOD, Information<br>Technology                     | Member                   |  |
| 26. | Dr. R.Shanthi Professor & HOD, Mechanical Engineering                             | Member                   |  |
| 27. | Dr.Ritesh Ramakrishna Bhat<br>Professor & HOD, Mechatronics<br>Engineering        | Member                   |  |
| 28. | Dr. R. Giri<br>Professor & HOD, Robotics &<br>Automation                          | Member                   |  |
| 29. | Dr. M.Uma Raman, Professor &HOD<br>Management Studies                             | Member                   |  |
| 30. | Dr.V.Prasanna Kumari, Coordinator - IQAC  | Teachers' Representative |  |
| 31. | Dr. Johanna Rajkumar, Dean,<br>Biotechnology                                      | Teachers' Representative |  |
| 32. | Mr.I.Philip Praveen, Director (Training & Placement)                              | Teachers' Representative |  |
| 33. | Dr. V. Murali Bhaskaran,<br>Dean (Academics)                                      | Member Secretary         |  |

The following members expressed their inability to attend this meeting:

| Dr.R.Senthil<br>Professor, Dept, Civil Engineering, CEG, Anna<br>University,<br>Chennai-600 025           | University Nominee |  |
|---|--------------------|--|
| Prof. Satyanarayanan R. Chakravarthy<br>Professor<br>Department of Aerospace Engineering<br>IITM, Chennai | Academician        |  |



The Chairman welcomed the members of the Academic Council and invited the Dean (Academics) to present the details of the Agenda items and initiate the discussion.

# AC. No.20.01 Action taken on the minutes of the 19<sup>th</sup> Academic Council meeting held on 23.8.2023

The following points approved in the 19th Academic Council meeting have been implemented:

- Passing requirements as per the UG and PG Regulations 2019 Revised (i.e.) for Theory cum laboratory courses, that a minimum of 45% in the end semester examination in each theory part and laboratory part is separately required for passing [i.e. instead of taking 45% of marks considering theory and laboratory components together].
- Regulations 2023 for both UG and PG Programmes and also curriculum and syllabus for I and II semesters for all the 19 UG and 9 PG Programmes.
- It was also highlighted that the assessment pattern for theory, practical, combined theory and practical courses and final year project are as per the guidelines of Anna University which is common for all the Autonomous institutions affiliated to Anna University Chennai

| AC.No.20.02 | Curriculum and syllabus framed for III and IV Semesters, for the 19-<br>UG and 9-PG programmes, based on Regulations 2023 and syllabus |  |  |
|-------------|--|--|--|
|             | for semesters V to VIII for 2 UG programs based on Regulations 2019(Revised)   |  |  |

Dean (Academics) requested the council to give suggestions on the curriculum and syllabus for the III and IV semesters based on regulations 2023 of the following 19 UG and 9 PG degree programmes, as recommended by the respective Board of Studies(BoS) from the academic year 2024-25 onwards.

| UG courses  | PG Courses  |  |  |
|---|---|--|--|
| B.E. Aeronautical Engineering                     | 1. M.E. Avionics                                  |  |  |
| 2. B.E. Automobile Engineering                    | <ol><li>M.E. Medical Electronics</li></ol>        |  |  |
| 3. B.E. Biomedical Engineering                    | <ol><li>M.Tech. Biotech</li></ol>                 |  |  |
| 4. B.Tech. Biotechnology                          | <ol><li>M.E. Computer Science and Engg.</li></ol> |  |  |
| 5. B.Tech. Chemical Engineering                   | <ol><li>M.E. Communication Systems</li></ol>      |  |  |
| 6. B.E. Civil Engineering                         | 6. M.E. Embedded System Tech                      |  |  |
| <ol><li>B.E. Computer Science and Engg.</li></ol> | 7. M.E. Engineering Design                        |  |  |
| 8. B.E. Electronics and Communication             | 8. M.Tech. Data Science ( L&T                     |  |  |
| Engg.   | EduTech)  |  |  |
| B.E. Electrical and Electronics Engg.             | 9. M B A. Master of Business                      |  |  |
| 10. B.Tech. Information Technology                | Administration                                    |  |  |
| 11. B.E. Mechanical Engineering                   |   |  |  |
| 12. B.E. Mechatronics                             |   |  |  |
| 13. B.Tech. Food Technology                       |   |  |  |

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- B.Tech. Computer Science and Business Sytems
- B.Tech. Artificial Intelligence and Machine Learning
- 16. B.E. Robotics and Automation
- 17. B.E. Computer Science and Design
- B.Tech. Artificial Intelligence and Data Science
- B.E. Computer Science and Engg. (Cyber Security)

Also, the curriculum and syllabus as per Regulations 2019(Revised) for the following programmes have been framed and recommended by the respective Board of Studies:

- . B.Tech. degree programme on AI & DS (Started in 2022) for semesters V to VIII,
- B.E. degree programme on Computer Science and Design(Started in2021) for semesters VII and VIII
- Additional electives have been included in B.E. CSE and electives are regrouped as 7 verticals in B.E. Mechanical Engineering

Dr. Balasivanandha Prabhu asked whether the total credit range of 160-165 is enough for accommodating all the necessary courses and their contents in any programme. The Advisor replied that the courses and contents are not compromised and certain essential courses have been made as mandatory courses in the curriculum but with zero credits.

After a detailed discussion of the various points, the council RESOLVED TO APPROVE the proposed curriculum and syllabus of the various programmes.

# AC.No.20.03 Revision of Curriculum and syllabus for M.Tech. Data Science course with the support of L&T Mindtree from 2024 batch onwards

Dean (Academics) requested the members of the council to give suggestions on the curriculum and syllabus for M.Tech. Data Science courses, revised with the support of L&T Mindtree based on regulations 2023 and recommended by the BoS for the students to be admitted from the 2024 onwards.

Dr. Balasivanandha Prabhu asked what the rolls are for the L&T Mindtree in implementing this course. Dean (Academics) stated that the following supports are extended by the L&T Mindtree:

- Developing curriculum and syllabus
- Training the faculty members to teach the subjects
- Few courses will be handled by L&T Mindtree
- Offering internship to the students and also placement

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After a detailed discussion, the council RESOLVED TO APPROVE the revised curriculum and syllabus for M.Tech. Data Science as per Regulations for 2023 with the support of L&T Mindtree.

| AC.No.20.04 | Increase in the number of online courses for enabling credit transfer |
|-------------|---|
|             | • From 3 to 5 courses for Regulations 2023                            |
|             | • From 2 to 5 courses for Regulations 2019(revised)                   |

In line with National Education Policy (NEP) 2020, to facilitate Academic Bank of credits, and inculcate the self- learning practices among the students, Dean (Academics) presented the proposal to increase the number of online courses from 3 to 5 in Regulations 2023 and from 2 to 5 in Regulations 2019 (Revised), subject to a maximum of 15 credits in both regulations (instead of 9 credits for Regulations 2023 and 6 credits for Regulations 2019(Revised)

Dr.S.R.Devadasan asked about the examination pattern followed for the online courses offered by industries. The Dean (Academics) replayed that as per regulations, the college is also conducting an assessment for the online courses offered by industries. Only those students who secure pass marks are eligible to apply credit transfer in lieu of the elective course(s).

In this context, Dr Succendran mentioned that TCS is also offering online industry courses for REC students and Dean Academics said that the assessment of students performance for these courses is conducted by REC

After the detailed discussion, the council RESOLVED TO APPROVE the proposal of increasing the number of online courses from 3 to 5 courses in Regulations 2023 and from 2 to 5 courses in Regulations 2019 (Revised)

| AC.No. 20.05 | Increase in intake for the 6 UG programmes from the academic year |
|--------------|---|
|              | 2024-25   |

Dean (Academics) presented to the Council the details on increase in intake for the following courses from the academic year 2024-25

- B.E.- Electronics and Communication Engineering from 240 to 360
- B.E.-Computer Science and Engineering from 300 to 540
- B.E.-Computer Science and Engineering (Cyber Security) from 60 to 120
- B.Tech.-Information Technology from 240 to 300
- . B.Tech.-Artificial Intelligence and Machine learning 180 to 240
- B.Tech.-Artificial Intelligence and Data Science 180 to 300

The council was informed that AICTE has given approval for the above increase in the intake from the academic year 2024-25 onwards and the approval of Anna University, Chennai, is awaited

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AC.No. 20.06 Reporting the recent developments /Achievements after the 19the Academic Council Meeting

# A. Institutional Level Achievements

- Anna University approved our college as an Institute Level Research Center in May 2024, valid for Three years.
- QS I-GAUGE rated REC as DIAMOND in 2023.
- · Signed MoUs with Zoho, Hexaware and Wipro for strategic Hiring
- Departments have signed 13 MoUs with different industries and organizations

# B. NBA Expert Committee Visit

The NBA Expert Committee visited our campus for the accreditation of following two programmes during 24-26 May, 2024.

- · B.Tech. Chemical Engineering
- · B.Tech. Food Technology

These two programmes have been accredited for THREE years (valid till June 2027)

## C. NPTEL Ranking

In all India level, our college has secured

- 38<sup>th</sup> Rank with AA star during JAN-April 2024
- 37<sup>th</sup> Rank with AA star during JUL Nov 2023

## D. Collaboration with Universities abroad:

- Organized a workshop on Design Thinking during OCT 16-18, 2023, by Prof. Michael V. Testani Senior Director of Industry Outreach, Binghamton University, USA
- Organized a course on Deep learning for students during June/July 2024 by Prof Dr. Richard K Min, University of Texas Dallas. USA

#### E. Details of Journal Publications

| Publications         | All | Scopus | WoS* | ABDC* |
|----------------------|-----|--------|------|-------|
| Aug-Dec 2023         | 334 | 250    | 75   | 9     |
| Jan 2024 to Jun 2024 | 303 | 216    | 86   | 1     |
| Total                | 637 | 466    | 161  | 10    |

\*WoS: Web of Science

\*ABDC: Australian Business Deans Council

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# Funded Projects (Total Rs. 67 lakhs)

| SNo | Project Details  | Amount<br>(lakhs)<br>45.97 |  |
|-----|--|----------------------------|--|
| 01  | Retrofitting of Structures with Self - Sensing<br>Multifunctional Cementitious Nano-composite from<br>DST -TDP in October 2023. PI- Dr.S.Geetha, Co-<br>PI-, Dr.M.Selvakumar |                            |  |
| 02  | MIC Scheme for Innovation grant for titled "AR Based Smart Education" under Yukti Innovation 2023 on 6.5.2024. PI. Dr. K. Devaki   | 3.00                       |  |
| 03  | Ms. Revathi M, Dr. Bagyalakshmi, Dr. A. Asha, Reconfigurable Pneumatic Wall Climbing Robot (PWCR) for Anomaly Detection and Cleaning in Industrial Environments              |                            |  |
| 04  | Dr. Millicent Mabel NUTRICOCAO - A Stress<br>Relieving Dark Chocolate Fortified with Bioactive<br>Ingredients  | 12.00                      |  |

# F. Consultancy Activities

- Number of on-going Projects 24
- Consultancy amount secured from Aug 2023 to Jun 2024: Rs. 77 lakhs

## G. Patents details

| Type      | Overall |           |         | 2023-24 |           |         |
|-----------|---------|-----------|---------|---------|-----------|---------|
|           | Filed   | Published | Granted | Filed   | Published | Granted |
| Product   | 139     | 39        | 25      | 51      | 15        | 13      |
| Design    | 154     | -         | 58      | 96      | -         | 35      |
| Copyright | 9       | -         | 6       | 6       | -         | 3       |
| Trademark | 2       | -         | -       | 1       |           | ė.      |



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#### H. Incentives for Faculty Members-2023

In order to motivate the faculty members and to promote the innovative ecosystem in the college; by sustaining the very high quality in Publication, Patents, Sponsored Research and Consultancy, we annually celebrate "Publication, Patents, Sponsored Research and Consultancy Day" and give awards to faculty members who have made significant contributions in these areas.

For this year, this day was celebrated on 24<sup>th</sup> April, 2024 and incentives were given to the faculty members for their contribution and achievements in year 2023 in Four categories - Research, Publications, Patents and consultancy. **Total incentives awarded Rs.85 lakhs** 

### I. Major Achievements of Students

- 44 in final year and 54 in I-III year student projects were selected for Tamilnadu State level -2023 project competition – "Naan Mudhalvan - Niral Thiruvizha".
- Winner in SIH 2023 held at Bhopal with 1 lakh cash prize under software category
- Overall championship in Mega All-Terrain Vehicle championship held at Goa during 10-12 May 2024 –with ₹ 50, 000 cash award
- Won the Luminous SIEP E-Bike Challenge January 2024 at Bhopal awards in six category- with total cash prize of ₹70,000
- A team of CSE and IT students has won Capture The Flag (CTF) events conducted by IITM PALS and Edith Cowan University Australia and secure top 10 ten teams of AICTE-NCIIPC Pentathon 2024. The team is identified for Vulnerability Assessment and Penetration Testing (VAPT) exercise of our Nation's Critical Information Infrastructure

### J. Establishment of a TANCAM Spoke Centre

 Establishment of a TANCAM SPOKE CENTRE (Tamil Nadu Centre of Excellence for Advanced Manufacturing) in our campus for offering the Modeling and Simulation course using 3DEXPERIENCE (3DX)

#### K. LinkedIn Learning for our campus, login credential is given to

- all our faculty members for up-skilling their knowledge and skills and
- · all our students for their additional learning and career development

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# L. Placement Record [2020-24 Batch]

| Details           | CORE | IT  | OTHERS | TOTAL |
|-------------------|------|-----|--------|-------|
| Companies Visited | 156  | 167 | 14     | 337*  |
| Offers            | 334  | 933 | 218    | 1485* |

| Students placed       | 987*     |  |
|-----------------------|----------|--|
| Highest CTC           | 18 LPA   |  |
| Median CTC            | 4.6 LPA  |  |
| Average CTC           | 4.61 LPA |  |
| Placement Percentage* | 79.88 %  |  |

The members appreciated the academic developments and the several achievements of the institution.

Dean (Academics) thanked all the members for offering their very valuable suggestions.

Dr.S.Balasivanandha Prabu University Representative Dr.S.R.Devadasan
University Representative

Dr. Suceendran K.M Industry Representatives

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Dr.M.Subbiah Academician Dr.C.R.Muthukrishnan Academician

Dr.V.Murali Bhaskaran

Member Secretary

Dr.S.N.Murugesan 617/214

Chairman- Academic Council