# **GNANAMANI COLLEGE OF TECHNOLOGY**



(Affiliated to Anna University - Chennai, Approved by AICTE - New Delhi, Accredited by NBA, NAAC with "A" Grade & ISO 9001 : 2015 Certified Institution)

NH-7, A. K. SAMUTHIRAM, PACHAL (P.O), NAMAKKAL – 637 018

### INTERNAL QUALITY ASSURANCE CELL (IQAC)

### **Annual Report**

Internal Quality Assurance Cell (IQAC) Committee Meeting was held in the following dates of the Academic Year 2021-2022.

#### Odd Semester:

Meeting 1 - 22.07.2021

Meeting 2 - 30.10.2021

#### **Even Semester:**

Meeting 3 - 21.01.2022

Meeting 4 - 30.04.2022

- 1. The minutes of the Academic Council Meeting conducted on 15.06.2021 was reviewed and the IQAC Coordinator suggested some guidelines to implement the plan for the various academic activities of the Institution for the Academic Year 2021-22.
- 2. The effectiveness of the progress of the academic activities scheduled in the Institute and Department Academic Calendar was verified by the IQAC committee through audits and frequent follow-ups.
- 3. 1 New UG course named Information Technology got approved and sanctioned with the intake of 60 seats, and Department of Artificial Intelligence & Data Science and Agriculture Engineering were sanctioned to increase the intake from 60 to 120 seats during the academic year 2021-2022.
- 4. The Committee congratulated the students Ms.A.Pavithra from M.E CSE secured 6<sup>th</sup> rank in the 2019-21 batch, Mr.T.Abdulajeesh from M.C.A secured 4<sup>th</sup> rank in the 2018-21 batch , Ms.S.Kanimozhi from M.C.A secured 4<sup>th</sup> rank in the 2018-21 batch and Ms.C.Haripriya from M.C.A secured 4<sup>th</sup> rank in the 2018-21 batch for securing University Rank in the 2020-21 academic year.
- 5. Department of Biotechnology installed Cell Biology and Microbiology Lab with overall cost of around Rs.3,00,000 /- on 08.10.2021 for the benefit of Students.
- 6. Department of Biomedical Engineering has set up Diagnostic and Therapeutic Equipment Laboratory with overall cost of around Rs.8,00,000 /- on 30.09.2021 for the benefit of Students.

- 7. Mr.M.Mohammed Ibrahim, AP/CSE and Mr.P.Thangamariappan, AP/CSE attended a One Week International Faculty Development Programme on "Curriculum Development, Research and Publication Ethics" from 02.08.2021 to 09.08.2021 organized by SRM Institute of Science and Technology, Chennai.
- 8. Dr.G.Ranganathan, Professor/ECE published a Journal paper entitled "Hyperspectral Image Processing in Internet of Things model using Clustering Algorithm" in the Journal of ISMAC (2021) Vol.03/ No.02 Pages: 163-175 <a href="http://irojournals.com/iroismac/">http://irojournals.com/iroismac/</a> ISSN: 2582-1369 (online) on 21.06.2021.
- 9. Mr.K.Anand, AP/ECE attended a Webinar on "Applications of Mathematics in Science & Technology" on 24.07.2021 organized by Arasu Polytechnic College, Kumbakonam.
- 10. The Committee verified the department wise students admitted count, strategies followed, Merit scholarship and other fee concession given during admission 2021-2022.
- 11. R.Shalini, III BME attended a Webinar on "Silica Designing of Deguelin Derivatives for Targeted Inhibition of Cancer Cell Signaling Pathways" at Bioscience Society-NIT, Rourkela Chapter on 21.08.2021.
- 12. N.Iswarya and M.Logeshwari, III BME had undergone an Internship training at London Ortho Speciality Hospital, Salem from 02.08.2021 to 04.09.2021 for 34 days.
- 13. B.Balaji, R.Sarathkumar and Suriya Prakash from Chemical Engineering underwent an Internship training on Solvent Recovery Effluent Treatment Plant Production at Orchid Pharma Limited from 01.09.2021 to 17.09.2021.
- 14. 8 Students from Department of M.C.A underwent in-plant training on "IOT manipulate by Raspberry-Pi" at VEI Technologies Private Limited, Chennai from 13.09.2021 to 18.09.2021.
- 15. 40 students from Civil Department underwent a In-plant training on "Construction Site Work" from August 2021.
- 16. S.S.Durga from II M.B.A underwent internship training at Praba's Vcare Health Clinic Pvt. Ltd., Chennai from 16.08.2021 to 30.09.2021.
- 17. Department of Biomedical made Memorandum of Understanding with M/s TMI Systems, Bangaluru on 08.10.2021 for the duration of 5 years.
- 18. Department of M.C.A made MoU to set up Industry Supported Lab with VEI Technologies Private Limited, Chennai on 10.07.2021 for the duration of 2 years.
- 19. Department of EEE signed MoU with Green Power Plant, Namakkal on 22.07.2021 and RaGa Technologies, Namakkal on 02.08.2021 for the duration of 5 Years to establish Industry Supported Lab.
- 20. Department of Biotechnology organized a Webinar on "Scope of Biotechnology in 21st Century" on 09.10.2021 where 33 students participated and got benefited.

- 21. Department of Biomedical Engineering organized a Webinar on "Recent Trends in Indusrial Automation using Embedded Systems" on 24.09.2021 where 105 students participated and got benefited.
- 22. Department of M.C.A organized a Webinar on "Block Chain as a Career" on 24.09.2021 through its professional body where 93 students participated and got benefited.
- 23. Department of Civil Engineering organized a Webinar on "Learn Construction" on 29.09.2021 where 13 students participated and got benefited.
- 24. Department of Electrical and Electronics Engineering organized a Webinar on "Block chain beyond the hype: Real use cases" on 05.10.2021 where 97 students participated and got be nefited.
- 25. Department of ECE had organized a Webinar on "Artificial Intelligence in Smart Devices" by Mr. S.Sathishkumar, Founder & CEO, Imagecon India Private Limited, Salem on 05.10.2021 where 76 students participated.
- 26. Department of Mechanical Engineering organized a Webinar on "Basics of NDT and Opportunities in Industries" on 29.10.2021 where 87 students participated and got benefited.
- 27. Dr.R.Nagarajan, Professor/EEE published a Journal paper entitled "Development of an H-Shaped antenna with FR4 for 1-10GHz wireless communications" at SAGE Publication (SCI) on August 2021.
- 28. Dr.J.Chandramohan HoD/EEE completed his Ph.D on 27.08.2021.
- 29. Dr. R. Nagarajan, Professor/EEE published a Book Chapter entitled "Planner antenna design, Fabrication, testing and application- Performance analysis of micro strip batch array antenna for vehicular communication" at Chapter 13, Nova Science Publisher on Sept 2021.
- 30. Dr.Sachin S Raj, Dr.T.K. Kannan, Dr.B. Sanjay Gandhi, Dr.N.Balakrishnan and Dr.C.Thiruvasagam from Mechanical Department applied for a Patent entitled "Remote Monitoring of Semi Automatic Pepper Threshing Machine Using Industrial Internet of Things" on 06.08.2021 at Intellectual Property of India, Government of India.
- 31. Organized a Webinar on "Economics of intellectual property rights" on 23.10.2021 through IPR Cell of the Institution.
- 32. Entrepreneurship Development Cell organized an online Awareness Programme on "Become A Good Entrepreneur" on 23.07.2021.
- 33. Entrepreneurship Development Cell organized an orientation programme on "Arrow to Success" on 18.08.2021.
- 34. EDC organized a webinar on "Cret Your Own Future" on 11.10.2021.
- 35. Conducted an Orientation Programme on "Impact of ICT in Teaching and Learning Process" on 20.10.2021.
- 36. Organized 75th Independence Day Celebration on 15.08.2021 through NSS/YRC cell.

- 37. Dr. L. Vinayagamoorthi, HoD/Maths delivered a Guest Lecture on "Matrices and its Applications" on 08.10.2021 organized by Vivekanandha Arts and Science College for Women, Salem.
- 38. Dr.T.K.Kannan, Principal/GCT has been selected as Technical Program Committee Member of EAI ITSPWC 2022.
- 39. First year class for the AY 2021 2022 was inaugurated on 22.11.2021.
- 40. Induction Programme for the first year students was conducted from 08.11.2021 to 21.11.2021 as Bridge Course.
- 41. Department of Biotechnology signed MoU with Gnyanamani Ventures Pvt Ltd., Namakkal on 28.12.2021 for the duration of 5 Years.
- 42. Department of Biomedical Engineering made MoU with M/s Saravana Hospital, Salem on 24.12.2021 for the duration of 5 Years.
- 43. All the departments have applied for funded proposals under different schemes of Governmental and non-governmental funding bodies to inculcate research culture among the faculty and students.
- 44. Dr.K.Anand, AP/ECE completed his Ph.D on 30.12.2021 under Anna University.
- 45. Department of Agriculture Engineering organized a Webinar on "Micro Irrigation" on 10.11.2021 where 32 students had attended and got benefited.
- 46. Department of Biomedical Engineering organized a Workshop on "Working Methods / Applications of Biomedical Equipments" on 19.11.2021 where 51 students were given hands on experience on the Biomedical Equipments.
- 47. Department of Computer Science and Engineering organized a Webinar on "Build a Successful Career Path in Network and Security Domain" on 13.11.2021 where 109 students had attended and got benefited.
- 48. Department of Electrical and Electronics Engineering organized a Webinar on "Industrial Practices in Development of Aircrafts at CSIR NAL and opportunities for Avionics" on 13.11.2021 where 94 students had attended and got benefited.
- 49. Department of Mechanical Engineering organized a Webinar on 'Future of Making Thinks with Autodesk Digital Manufacturing Solution' on 24.11.2021 where 98 students had attended and got benefited.
- 50. Department of MCA organized two days workshop on "Computational Models & Representation for Data Science" on 20.12.2021 & 21.12.2021 through MOU signed Industry.
- 51. Department of Chemical Engineering had installed Mass Transfer Lab on 25.11.2021 with overall cost of around Rs.6,50,000 /- and Process Control Lab on 23.12.2021 with overall cost of around Rs.8,00,000 /- for the benefit of students.
- 52. Department of Pharmaceutical Technology installed Physical Pharmaceutics Laboratory on

- 18.11.2021 with overall cost of around Rs.2,50,000 /- for the benefit of students.
- 53. Ms.V.Chandrakumari, AP/Biotech attended a Oneday Virtual Workshop on "Cell Viability Assay", organized by Veridian Microlab Pvt. Ltd., on 19.12.2021.
- 54. Mr.K.Anand, AP/ECE attended an ATAL Online FDP on "Artificial Intelligence Enabled Sensors and Networks for 5G Wireless Communications" from 06.12.2021 to 10.12.2021 organized by Mahendra Engineering College.
- 55. Dr. R.C. Karpagalakshmi, Professor/CSE had attended an AICTE-ISTE approved Orientation/Refresher Programme on "Intelligent Computing Using Python" at Sona College of Technology from 22.12.2021 to 29.12.2021.
- 56. Dr.Sachin S Raj, AP/Mech attended a one week Online FDP on "Advances in Strength of Materials and Manufacturing Engineerig" from 06.12.2021 to 11.12.2021 organized by AMET Deemed to be University, Chennai.
- 57. Mr.R.Ganesh Kishore, AP/EEE attended six days Online FDP on "EE8005 Special Electrical Machines" from 13.12.2021 to 18.12.2021 organized by Christian College of Engineering and Technology, Dindigul.
- 58. 6 Faculty members from Department of ECE attended a One –Week Online Joint FDP on "Machine Learning Application in Signal Processing and Communication Engineering" from 03.01.2022 to 08.01.2022 jointly organized by Electronics and ICT Academics.
- 59. Students from all the departments were given Employability Skill Development Programme from 20.12.2021 to 24.12.2021 by Mahindra Pride School Training Academy.
- 60. 14 Students from Biomedical Engineering got Selected in Worksbot, Chennai as Interns and undergoing training as Full stack Developer from 06.01.2022 to till date.
- 61. 6 Students from Department of CSE attended internship training at Au labs, Chennai and Worksbot, Chennai for the duration of 3 Months.
- 62. S.Mullai Vendhan from IV Year Biomedical Engineering underwent Internship training program at Shri Vinayaga Scans, Karur from 27.08.2021 to Dec 2021.
- 63. 5 Students from Chemical Engineering had undergone internship training on Manufacturing of Mango Pulp at Ivory Gull Candy from 25.10.2021 to 10.11.2021.
- 64. 5 Students from Civil Engineering had undergone internship training on Land Survey at Sri Siva Sakthi Associates during December 2021.
- 65. S.Suvitha from II Year M.E-CSE published a Journal paper entitled "An Estimation and Evaluation of Network Availability in Link State Routing Networks" in the Journal of Network Security Computer Networks e-ISSN: 2581-639X Volume-7, Issue-3 (September-December, 2021) <a href="https://doi.org/10.46610/JONSCN.2021.v07i03.003">https://doi.org/10.46610/JONSCN.2021.v07i03.003</a>.
- 66. Mr.K.R. Varunkumar received Start-Up Business Award from Rotary Club of Salem Green on

- 67. Conducted a Webinar as an "Invester Awareness Programme" on 30.11.2021 through Entrepreneurship Development Cell.
- 68. Organized a Webinar on "Career Path for Electrical Engineers" on 21.12.2021 for the electrical students to become a successful Innovator in their domain.
- 69. Organized an "Awareness Program for Gate Examination" on 16.12.2021 for Final Year Students through Higher Education Cell.
- 70. Organized a NSS Orientation Programme on 05.11.2021 through NSS Cell where 100 of our students leveraged their participation.
- 71. Conducted a "COVID-19 Vaccination Camp (Ist Dose)" on 13.11.2021 through NSS/YRC Cell where 100 of our students got vaccinated.
- 72. Organized an Awareness Programme on Mask Wearing on 18.11.2021 through NSS/YRC Cell.
- 73. Organized an YRC Orientation Programme on 22.11.2021 through YRC Cell.
- 74. Conducted a Seminar on "Living a successful and meaningful Life" on 22.12.2021 through NSS/YRC Cell.
- 75. Conducted a "COVID-19 Vaccination Camp (II Dose)" on 23.12.2021 through NSS/YRC Cell where 100 of our students got vaccinated.
- 76. Conducted Plastic Awareness Drive on 24.12.2021 2021 through NSS/YRC Cell.
- 77. Organized a Footwear Measurement Survey Camp on 06.01.2022 through NSS/YRC Cell 300 of our students got benefited.
- Vice 78. Dr.K.Chandramohan, Principal/GCT Dr. R. Umamaheswari, HoD/CSE, Dr.R.C.Karpagalakshmi, Professor/CSE and Mr.M.S.Sabari, AP/CSE published a journal paper entitled "Location of Plant Leaf Maladies Utilizing Picture Division" in the Journal of Image Processing and Artificial Intelligence e-ISSN: 2581-3803 Volume-7, Issue-3 (September-December, 2021) https://doi.org/10.46610/JOIPAI.2021.v07i03.002.
- 79. Dr.R.Nagarajan, Professor/EEE had published a book under the title "Advanced smarter and more secure industrial application using AI, IoT and block chain technologies- Recent trends in block chain technology Challenger and opportunities" in Chapter No.10, IGI Global Publisher on Dec 2021.
- 80. Dr.Sachin S Raj, Mr.S.Krishnakumar, Dr.S.Saravanan, Dr.T.K.Kannan from Mechanical Department published a Journal paper entitled "Philosophy of Selecting ASTM Standards for Mechanical Characterization of Polymers and Polymer Composites" in Materiale Plastice 58 (3), 2021, 247-256.
- 81. Dr.G.Ranganathan, Professor/ECE published a journal paper entitled "Intelligent Computing and

- Control Framework for Smart Automated System" in journal of Intelligent Automation and Soft Computing on January 2022.
- 82. Women Empowerment Cell organized an awareness programme on "Clean care is safe care a women Perspective" on 23.12.2021 where around 300 Female Students and Faculty members attended and got benefited.
- 83. Dr. T. Geetha, HoD/MCA acted as Jury on Recent Trends in Information Technology at Arignar Anna Government Arts College, Namakkal on 01.11.2021.
- 84. Dr.R.Nagarajan, Professor/EEE acted as Keynote Speaker, Session Chair and National Advisory Committee Members in the International Conference on Soft computing and Intelligent Technologies (ICSCIT-2021) organized by Cheran College of Engineering, Karur and Conference World- Gorakhpur on 24.12.2021.
- 85. Dr.N.Balakrishnan, HoD/Mech has become National Advisory Committee Member in the International Conference on Soft Computing and Intelligent technologies organized by Cheran College of Engineering on 24.12.2021.
- 86. Virtual Alumni Meet 2022 was conducted on 30.01.2022 (Sunday) through Google Meet platform.
- 87. NAAC Peer Team visited our institute on 17.02.2022 and 18.02.2022. The team certified with A grade and appreciated our efforts. The necessary action was taken on Peer Team report.
- 88. Academic Council Coordinator prepared Academic Calendar for 2021-2022 Even Semester in-line to the University.
- 89. The panel members were selected for Administrative and Academic Audit.
- 90. The Exam cell gave detailed instructions about the University online semester examinations to the students through coordinators which was very useful for the students.
- 91. Various cells and committee organized social responsibility activities, Awareness and Training Programs, lectures, seminar, other welfare activities Skill development programs such as Webinars, Guest lectures, Workshops, Project Presentation, Value added courses, and Nontechnical events for overall development of students.
- 92. AAA report was inspected department wise and the corrective measures proposed were implemented as per the direction of the Chairman of IQAC to enhance the quality of the Academic Initiatives of the Institution.
- 93. The IQAC Annual plan for the academic year 2022-2023 was placed in Governing Council Meeting.
- 94. The renovation work of the institution is completed and extension of Mother Theresa hostel is in progress.
- 95. NBA expert team visited on 22.05.2022 and further accreditation status on the basics of compliance report was granted for CSE, ECE, EEE and Mechanical till 30.06.2025.

- 96. Department of Agriculture Engineering installed 13 equipments for Soil Science Laboratory on 18.04.2022 with overall cost of around Rs.78,553 /- for the benefit of students.
- 97. II year Agriculture students underwent for Industrial Visit to Kovai Agro Forms, Coimbatore on 06.05.2022.
- 98. Sugan K, Chemical did internship at Biotech Solution from 18.7.22 to 01.08.22.
- 99. Abinesh Kumar, ECE did internship at Claiber Embedded Technologies India Pvt. Ltd., from 01.08.2022 to 06.08.2022.
- 100. Department of Electrical and Electronics Engineering have renewal its R&D centre.
- 101. Mr.R.Karthikayan, AP/MCA have published a paper in International Journal of Multidisciplinary Research in Science, Engineering and Technology "A Blockchain approach to ensuring provenance to outsourced cloud data in a sharing ecosystem"
- 102. Dr.R.C.Karpagalakshmi, have Conference on Recent Trends in Engineering & Technology on 18.6.2022.
- 103. Dr. R. Nagarajan, Prof/EEE have published a book entitle Recent Trends in Microstrip Antennas for Wireless Applications in NOVA Science Publishers, Inc, New York.
- 104. Dr. Sachin S Raj, AP/Mech have published a paper in conference Investigation of the Orientational Mechanical Properties of Biodegradable Extrusion Films Based on Pololefins and Beet Pulp
- 105. Dr.M.Selvaraj, AP/Mech completed his Doctorate in July 2022.
- 106. Mr. Kamalanathan M, AP/ECE registered Ph.D on July 2022.
- 107. Dr. R.C. Karpagalakshmi, Prof/CSE acted as a Reviewer at 4th International Conference on Computer and Communication on 29 & 30 July 2022.
- 108. Dr. R. Umamaheswari Prof & Head/CSE acted as a Guest Lecture at Bharathiyar Institute of Engineering For Women on 10.06.2022.
- 109. Gnanamani Rural Entrepreneurship And Technology Incubation Foundation (GREAT i) made Memorandum of Understanding with M/s. Cognitive i (Amritha Institute of Management) on 13.06.2022.
- 110. Gnanamani College of Technology made Memorandum of Understanding with M/s. Cognitive i Software Solutions, Salem on 13.06.2022.
- 111.1 New PG course Biomedical Engineering got approved and sanctioned with the intake of 24 seats, and Department of Information Technology, Biotechnology, MBA were sanctioned to increase the intake from 60 to 120 seats and Computer Science Engineering were increased from 120 to 180 seats during the academic year 2022-2023.

#### Consolidated Annual Report for the academic year 2021-2022 follows

- Around 73 programmes have been organized by all the departments to enhance the student's technical skills.
- NSS /YRC cell organized 18 programmes related to Covid situations and organized medical camp.
- EDC organized 7 Activities related to entrepreneurship.

## **Faculty Activities and Achievements:**

- Total Faculty Participation is 248 and Achievements is 11.
- Faculty Reputed Journal publication is 77
- Patent publication is 8 and book publication is 18

#### **Student Activities and Achievements:**

- Student Participation 3641
- Student Achievements 96