



St. MARTIN'S ENGINEERING COLLEGE

(Autonomous Institute – UGC, Govt. of India)

**NAAC (A+) & NBA Accredited | Affiliated to JNTUH
Dhulapally. Secunderabad. Telangana - 500100**



RESEARCH AND DEVELOPMENT CELL

CONTENT

Sl. No.	Content	Page Number
1.	Introduction	3
2.	Vision Mission and Objective	4
3.	Function and duties of RDC	5
4.	Governance	7
	Composition of advisory council	8
5.	Research Promotion & Guidance	11
6.	Integrity and Ethics	13
7.	Research Monitoring	15

RESEARCH AND DEVELOPMENT CELL

Introduction

Research and Development Cell (RDC) is an extension of the vision, mission and commitment of **Dr. P. Santosh Kumar Patra, Principal**, St. Martin's Engineering College, Secunderabad, and **Group Director**, St. Martin's Children's Education Society, Secunderabad, since 2016, to move forward towards excellence in academic, research and sports in all areas which are important in country's development. The RDC of SMEC facilitates and encourages research culture among the faculty and students. Its prime role is to establish a connection with the real world and promote research through a range of publications. It has six dedicated laboratories to solving problems in cutting edge technological issue to future applications of national relevance.

It enables a congenial environment for technological development and monitors the research activities of the college. It takes upon the responsibility of creating a work place to attract the best talent and strives continuously in pooling of skills and internal resources, creating strategy, overcoming limitations, and makes the institute proud to be amongst the best institutions around the country.

Under the visionary leadership of **Chairman of RDC** and Principal of SMEC: **Dr. P. Santosh Kumar Patra**, the college is able to obtain the grant in excess of **Rs. 630 crores** from various agencies like GHMC, HWMSSB, MSME, DST, IIT BOMBAY, AICTE, foreign funding etc. The publication statistics including **journals: 8800+**, **patents: 314+**, **books: 148+**, **conference proceedings: 1055 +**, **copy rights: 36** and citations are credit worthy. The number of publications from inception is reaching towards 10,000. In addition, RDC holds a credit of **138 innovative products** which are developed by students and faculty and 40000 international certification courses. It is worth to mention that the institution is recognized as a **research centre** for the faculty of CSE by **JNTUH**.

Vision, Mission and Objectives

Vision

To implement, maintain and continually improve the research ecosystem of the Institute that contribute pragmatically towards the goal of a self-reliant nation.

Mission

- Provision of resource and favourable environment for enhancing the research productivity.
- To promote collaborative research, innovation, technology development, and enterprise activities with industry, government, non-government, state, national and international organisations and agencies.
- To identify and implement resource and funding mobilisation system for facilitating greater access to research to students, research scholars and faculty members.

Objectives

1. To develop an organisation structure for proper functioning of various role of the cell.
2. To formulate and implement the research policy across the institute.
3. Identify major research areas across disciplines institute-wide, and set up a consortium of researchers.
4. To set up human resource, procurement, and financial management system with adequate autonomy to the Principal Investigator(s)
5. To publish the outcomes of research at the global level.
6. To establish a unique vehicle for promotion of researchers, innovators and star-ups.
7. To develop a consultancy services within the cell for to identify
8. To establish domain based centre of excellence

Functions and Duties of RDC

- To create awareness and opportunities in Research and Development among the students & faculty and to create Research and Development atmosphere in every department.
- To create interest and atmosphere among the staff members to take up Research projects and improve their knowledge, skills and qualifications by registering Ph.D.
- To motivate the faculty members of the group for R&D activities in the area of their specialization.
- To encourage staff members and students to publish technical papers for publishing in International SCI-SCOPUS indexed Conferences/Journals.
- To encourage faculty members of all the disciplines in Engineering/Science/Humanities/Management in R&D activities for their professional growth.
- To undertake research activities and development projects offered by agencies such as ISRO, DRDO, CSIR, DST, AICTE, UGC, etc.
- To assist the students to apply funding for conducting research and start-ups under student project scheme to various funding agencies like MSME, IEI (I), DRDO, TCS, Infosys etc.
- To assist for applying and getting funds for conducting Seminar/Workshop/FDP from various funding agencies.
- To facilitate the growth of research activity among the academic community, including developing mechanisms and targets to achieve this

- To develop and coordinate strategies for maximizing the faculty's success in gaining external research funding.
- To maintain and disseminate current information about relevant research policy areas and initiatives in government, in the professions and in relevant industries, including external funding opportunities.
- To develop strategies to foster research collaborations within the faculty, across faculty and institutes, and with agencies outside the college.
- To work with various departments to establish and develop faculty research priorities on interdisciplinary areas.
- To interact with industry, government, professions and the wider community on all research matters promote faculty research activities to external stakeholders.
- To coordinate faculty level workshops and staff development activities on research-related issues.
- To encourage development of activities to attract the best research oriented higher degree students.
- To maintain effective links with government departments, authorities, business, and commerce and industry organizations relevant to the college research activities.

Governance

The Research Governance will have a Research Advisory Council (RAC) headed by the Principal as a chairman of RDC. The Director, nominated by Chairman among the distinguished researchers from the institute, will head various committees to drive the governance. RDC further formed multiple committees to smoothen its functioning with respective committee members nominated by the Director- RDC and approved by RAC. The organisational structure of RDC comprising of various committees for specified functions may be as under:

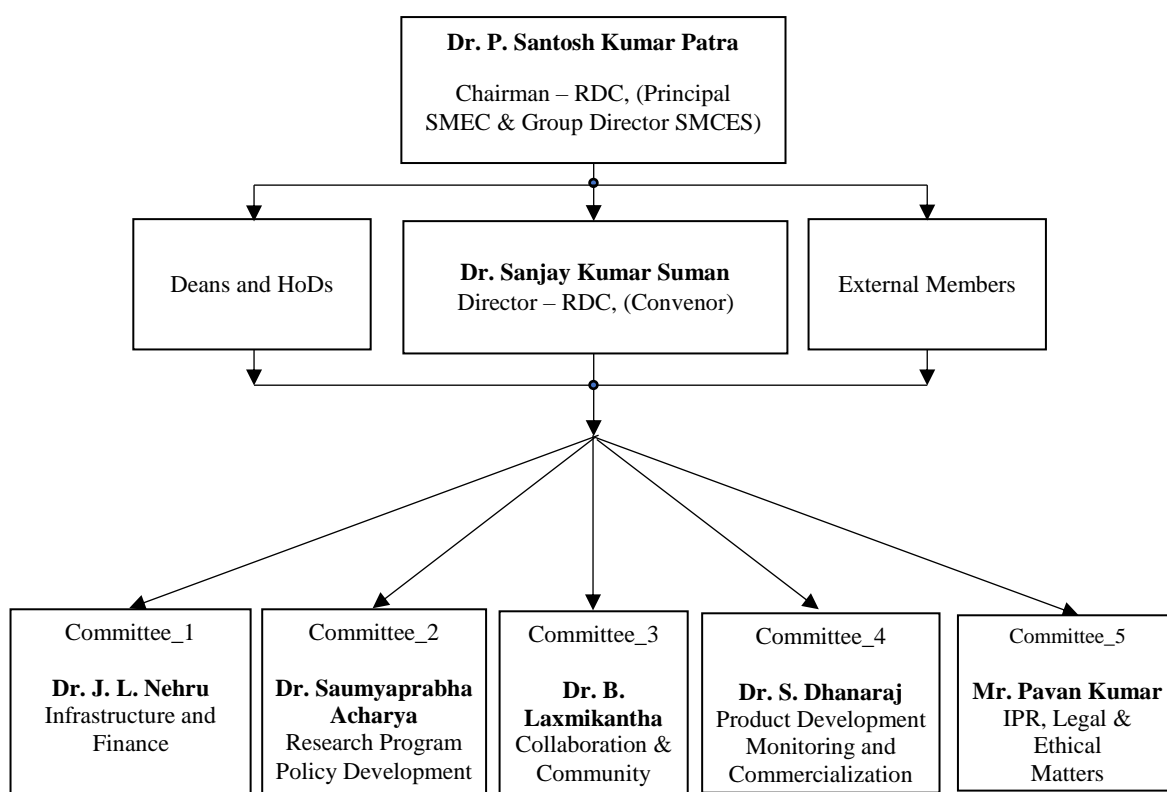


Fig. 1: Organisational structure of RDC

COMPOSITION OF ADVISORY COUNCIL

Advisory Committee - Principal, Deans, HoDs and 3 or 5 renowned external academic personalities with sufficient research and administrative background.

Administrator: Director (Convener) with research supervising experience and 1 or 2 non-teaching officers representing with experiences in research related administrative duties.

Institute Research Core Committee - Professor with at least 10 years of research supervision experience and 4 to 5 members to implement of policy and guidelines provided by the advisory council.

Coordinators - Teaching faculty members from all departments of the institute. The SMEC has a Research Advisory Council to frame policies and guidelines. It is an apex policy making body for Research & Development and consultancy activities of the institute. It meets at least once a year.

Table 1: Research Advisory Council – Internal Members.

INTERNAL		
S. No.	Name	Designation
1.	Dr. P. Santosh Kumar Patra	Chairman
2.	Dr. Sanjay Kumar Suman	Convener
3.	Dr. S. V. S. Rama Krishnam Raju	Member
4.	Dr. D. V. Sreekanth	Member
5.	Dr. R. Santhoshkumar	Member
6.	Dr. R. Nagaraju	Member
7.	Dr. B. Heri Krishna	Member
8.	Dr. N. Ramchandra	Member
9.	Dr. D. Ranadheer Reddy	Member
10.	Prof. Sandhya Kiran J. K.	Member

Table 2: Research Advisory Council – External Members.

EXTERNAL MEMBERS	
Name	Official Address
Dr. Siva Satya Srinivasa Murthy Chavali	Shri Velagapudi Ramakrishna Memorial College (SRVMC) Nagaram, Guntur, AP - 522268
Dr. A. V. Maheswar Rao	Wipro Technologies, Hyderabad
Dr. Enireddy Vamsidhar	Dept. of CSE, K. L. Education Foundation Vaddeswaram, Guntur, AP
Dr. Vinay Kumar Mittal	Dept. of CSE, K. L. University, Vijayawada
Dr. K. Raghvendra Rao	Scientist SG, Advance data Research Institute, ISRO, Secunderabad

Table 3: Core Committee.

Core Committee			
Sl. No.	Name	Designation	Role in RDC
1.	Dr. P. Santosh Kumar Patra	Principal SMEC and Group Director, St. Martin's Children's Education Society.	Chairman
2.	Dr. Sanjay Kumar Suman	Professor, Dept. of ECE and Dean R&D	Director
3.	Dr. Saumyaprava Acharya	Associate Professor, Dept. of S&H	College R&D Coordinator and Committee i/c: Research Program Policy Development and Research Forum

4.	Dr. Dr. G. JawaherInehru	Associate Professor, Dept. of CSE.	Dept. Coordinator and RDC Committee i/c: Infrastructure & Finance and IDEA LAB
5.	Dr. B. Laxmi kantha	Associate Professor, Dept. of IT.	Dept. Coordinator and RDC Committee i/c: Collaboration & Community and Funding update
	Dr. Dhanaraj S.	Associate Professor, Dept. of ME.	Dept. Coordinator and RDC Committee i/c: Product Development Monitoring and Commercialization
	Mr. Pavan Kumar	Asst. Professor, Dept. of ECE	Dept. Coordinator and RDC Committee i/c IPR, Legal & Ethical Matters and Professional Society

Table 4: Department R&D Coordinators.

Department R&D Coordinators			
Sl. No.	Name	Designation	Department
1.	Dr. G. JawaherInehru	Associate Professor	CSE
2.	Dr. B. Laxmikantha	Associate Professor	IT
3.	Dr. S. Dhanaraj	Associate Professor	ME
4.	Mr. Pavan Kumar	Asst. Professor	ECE
5.	Mrs. Priyanka	Asst. Professor	EEE
6.	Mrs. Ch. Kalyani	Asst. Professor	CE
7.	Mrs. M. Santoshi Kumari	Asst. Professor	S&H

Research Promotion & Guidance

The R & D has mandated Research Funding Schemes through Seed Grants to encourage faculty researchers to set up the basic infrastructure through development of research centres/centre of excellence to carry out research achieving the outcomes such as:

- i. Research article publications
- ii. Patents
- iii. Book / Book Chapter publications
- iv. Conference Proceedings
- v. Collaborations with National and International Institutions of repute
- vi. Applying for grants from External Agencies

This seed grant scheme shall offer financial assistance to individual or to team of faculty (Interdisciplinary/Multidisciplinary Research Centres) in establishing basic research infrastructure. In addition to financial assistance, RDC is providing cash award for publications as per Table 5.

Table 5: Promotional Policy.

Publication particulars	Cash Award
SCIE with IF>5	20000
SCIE with $2 < \text{IF} < 5$	15000
SCIE with IF<2	10000
SCOPUS with IF>1	10000
SCOPUS with IF<1	7000
ESCI	6000

UGC Care 1 (online)	3000
UGC Care 1 (Print)	2000
INDEXED CONFERENCE	5000
Non- Indexed Conference with ISBN Proceeding	1500
BOOK CHAPTER: INDEXED	10000
BOOK CHAPTER: NON-INDEXED	5000
BOOK: WITH INTERNATIONAL PUBLISHER	20000
BOOK: WITH NATIONAL PUBLISHER	15000
BOOK: STATE LEVEL PUBLISHER	10000
BOOK: REGIONAL PUBLISHER	5000

With following Terms and Conditions:

1. Article must be of maximum 4 author paper.
2. Awardee must be either first author or corresponding author.
3. All communication must be submitted.
4. Claim will be entertained after indexing only.

Integrity and Ethics

- Faculty members are expected to undertake research, leading to quality publications, presentations in reputed National/International conferences, generation of Intellectual property with commercial potential, and social relevance.
- St. Martin College aims to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, safe, and accountable.
- HOD of the concerned department, along with departmental R&D coordinator, is responsible for developing and maintaining an ethical and safe research environment within each department. Researchers must comply with relevant legislation, guidelines, policies, and directives issued by the Government of India and its relevant agencies concerning ethical and safe practices in research
- All Heads of the Department must weekly submit the R&D progress report to RDC and regularly and diligently update the R&D information on the Institution website for department and submit the reports to RDC.

Plagiarism

The following procedure is adopted by the college to check plagiarism in the thesis / dissertation / publication of research papers/chapters in books / full-fledged books and any other similar.

- The research papers of the faculty/ student before sending to any journal or conference, it is run through anti-plagiarism software for checking the similarity index.
- Levels of Plagiarism would be quantified into following levels in ascending order of severity as shown in Table 6.

Table 6: Plagiarism Condition

Level	Similarity	Decision
Level 0	Similarities up to 10%	Accept
Level 1	Similarities between 10% > 30%	Permissible
Level 2	Similarities between 30% > 60%	Resubmit
Level3	Similarities >60%	Reject

Research Monitoring

To maintain the quality of publication, development towards R&D, RDC devised the following policy for regular monitoring

1. **Weekly Meeting:** Every Wednesday, R&D Coordinator calls all the dept. coordinator for review meeting. Minutes of Meeting is recorded.
2. **Weekly R&D Report:** Research Coordinator collect weekly update of R&D from the departments on every Thursday. RDC analyse, summarize and submit the weekly progress report to the Chairman of RDC on every Friday.
3. **Fortnight Meeting:** R&D Coordinator calls all the doctorates and department coordinators for meeting under the chairmanship of one department head. Meeting Chairman takes the progress update of all doctorates, invites doctorates to participate in discussion on cutting edge technological development in world and delivers his ideas/thought as a seminar presentation. The content of discussion is recorded in Research Forum News Letter which is published twice in an academic year.
4. **Monthly Meeting:** Convenor of RDC calls for meeting cum presentation of all doctorates and all department coordinators at the end of every month under the chairmanship of Principal and/or Dean academic and/or Dean Admin. Chairman reviews progress of all doctorates and all department meticulously and submit the report to the Principal and RDC Chairman if Principal is not chairing the meeting.
5. **Semester-Academic Year Report:** RDC Director submit the progress toward the R&D in every semester to the Chairman of RDC and get the guidelines for next semester. This report is included in the Research Forum News Letter.