

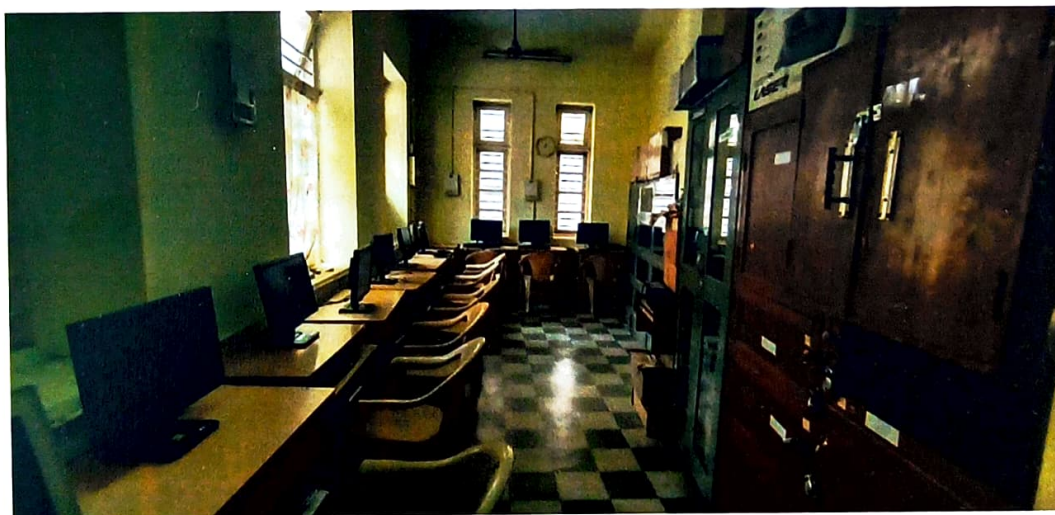


N.K.T. NATIONAL COLLEGE OF EDUCATION FOR WOMEN

(Autonomous)

**No. 41, Dr. Besant Road,
Triplicane, Chennai-600 005**

**DESIGN & FUNCTIONING OF
INNOVATION ECO SYSTEM AT THE
RESEARCH & DEVELOPMENT CENTRE**



TRANSFORMING STUDENTS TO GLOBAL EDUCATORS

Approved by the Research Committee in its Meeting held on 9th April 2020

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N.K.T. NATIONAL COLLEGE OF EDUCATION
FOR WOMEN (AUTONOMOUS),
TRIPPLICANE, CHENNAI-600 005.**

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Design and Functioning of the Innovation Eco System at the Research and Development Centre

1. Background

N.K.T. National College of Education for Women established in the year 1966 by Sriman N.K. Thirumalachariar, a visionary and a philanthropist is situated at the heart of the Chennai city. Our College is housed in an area of 3.06 acres, where a model school is also attached. It has metamorphosed into a well-established, urban College catering to the educational needs of women from all sections of society and committed to its mission of empowering young women student-teachers to face life and its multifarious challenges at both personal and professional levels.

The College offers graduate, post graduate and research courses in Education with Autonomous status granted by the University Grants Commission in the year 1988, and has grown upright to greater heights as an Institution of higher learning in Teacher Education. In its continuous striving for excellence over decades, the Institution has been successful in achieving position "Second to None", and has been upgrading its curricula and pedagogy on par with the global standards.

The College is committed to impart quality education to all students and is one of the pioneering Colleges of Education to encourage research culture among students and Faculty members, who believe that research and teaching are complementary to each other. Though the main function of the College is for teaching, learning and evaluation, the College has promoted a vibrant research culture in the campus as our College has been recognized as a Research Institution by the University of Madras, Chennai from 1983 and then by Tamil Nadu Teachers Education University, Chennai since 2008.

In order to achieve quality and excellence in Teacher Education, the College professes or attempts to innovate each and every sphere of our academic programmes holistically, be it curriculum design, teaching pedagogies, research designs and methodologies, community outreach and extension activities, publishing practices,



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faculty improvement and enrichment programmes, student and teacher exchanges with other educational institutions in India and abroad, performance linked incentives and career progression, student feedback mechanism, assessment and accreditation, skill enhancement practices, vocational training programmes, green campus initiatives, student placement opportunities, deputation regulations, development plans and long-term strategies for progress and growth of our Institution.

These areas are addressed in an integrated manner through well-documented policies and procedures, to place, our College at par with the Global standards and emerge as a pioneer institution.

Through persistent brainstorming, policy-planning and timely execution of the mission statements, it will be realistic to think about achieving the vision of transforming students to global educators. In order to transform this dream into a reality is dynamic leadership, visionary governance, and dedicated workforce at the Institution.

2. Research & Development Centre

Research and Development Centre of the College revolves around Educational Research for the development and upliftment of the stakeholders and community at large. The faculty members of the College, students and other research scholars are kindled to identify research problems for testing and validation. The R&D Centre invigorates and probes into the research findings to promote observation and repeated testing in the field till the objectives are realised.

3. Innovation Eco System at the R & D Centre

College has been focusing on imparting education to students with the best possible means and techniques. The College focuses on every facet of developmental requirement and one such avenue through innovations at the Institution. The innovations involved the delivery of content, exposure to students, personality development sessions, sensitizing to the needs of the community, etc. and all such avenues equip students with a better hold on their prospective career.



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As innovation enhances the standard of education as it induces Faculty members and students to adopt a better way of thinking to solve problems, the College has found a way to better involve with society, enhance the delivery of curriculum, gauge the improvement of students in improvised way, nurture the intellectual property at the Institutions, maintain and develop the administrative profile of the Institutions etc. The Institution nurtures the student development to an extent that innovations become part of the regular affairs rather an initiative.

3.1 Purpose

As technological Intervention, Faculty profiling, Students interest, etc., help to deliver better than before and to large extent different than before, and it is realized that Innovations in Education will lead to a brighter learning world.

Innovation Eco System at the Research and Development Centre has been established to **create an active flow of information and resources for the implementation of ideas in order** to provide the means to create knowledge.

3.2 Objective

At the Institutional level the innovations have been revolving more around the curriculum deployment and with the realization that the product is the student's knowledge rather accumulated scores. As personality development of students is the crux of education today, the main objective of the Innovation ecosystem is to revolve around to make students a competent personality; to encourage Faculty members and students to nurture their talents through research and exploration to experience something new and to foster problem solving to ensure creative and fruitful outcomes as a result of Innovation in Education.



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3.3 Drivers of Innovation Eco System at the R & D Centre

The Institution has identified the following drivers of Innovation Eco System.

(i) Funding for Research

One of the most important requirements for research is the availability of adequate funds. Funding opportunities for research at regional, national and international levels through public institutions, private industries, Non Governmental Organisations (NGOs) as well as through opportunities for public~ private partnership needs to be tapped to their fullest.

(ii) Infrastructure for Research

The next import requirement is to develop and establish research infrastructure for enhancing research and improving research quality drastically at the Institution. The Research and Development Centre has been established at the College for the purpose of supporting and promoting the Research Culture among Faculty members and Research Scholars. Besides, the Centre is being equipped with sophisticated instruments required to conduct high-end research, databases that are required to undertake systematic literature reviews, meta-analyses, access to literature through the feasible databases like INFLIBNET, Open Educational Resources, Scopus, Science Direct, Web of Science etc.

(iii) Human Resource for Research

Apart from funds and infrastructure, it is the trained human resource that really makes the things to happen. Adequate, qualified, trained, well-oriented and specialized human resource is needed in the right numbers to run the research center and carry out research in identified thrust areas. The R and D Centre has trained Faculty members and IT Trained Support Staff to carry out the Research Activities of the Institution.



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(iv) Policies for Research & Development

Comprehensive, goal-oriented and focused research policies at the institutional level for enhancing research and promoting research quality in tune with fast changing global trends have been framed and approved for carrying out intensive research on thrust areas identified by experts. The Institutional Policies are evidence-based and practised and implemented in a time-bound manner.

(v) Incentives for Research

Quantity of research receives priority over quality of research. Peers and experts in the field evaluate the quality of research, based on their experience and by using journal metrics like impact factor and citation index, and hence incentive or recognition is given to Faculty members and Research Scholars.

(vi) Collaborative Research

The concept of inter-disciplinary research may be regarded as a form of collaboration between various disciplines, either within the Institution or between Institutions. This contributes to learning across different disciplines and in expanding the horizon of knowledge, pedagogical learning and research outlook.

(vii) Contextual Research & Development through Sessions for Incubation of Innovative Ideas

With the vision to meet the evolutionary and dynamic challenges in Education by transforming students to Global Educators every year, the R & D Centre of the College organizes sessions for incubating innovative ideas for performance improvement. The sessions are held to brainstorm ideas for innovative practices relating to performance improvement in Research and Outreach performances of the Institution. The sessions involve a structured and analytical process that would help to develop imaginative ideas. Brainstorming provides a free and open environment that encourages everyone



to participate and to contribute fully, helping them develop a rich array of creative solutions that address the needs of the society through contextual research.

(viii) Applied and Contemporary Research

It is essential that research initiatives and publications must lead to practical implications in terms of incorporating research findings and recommendations into administrative policies. The College ventures to integrate research findings of Faculty members and Scholars into the Curriculum, Teaching-Learning and Evaluation Methods, Research Consultancy and Outreach Activities, Student Development, Infrastructure Maintenance and Campus Sustainability, Governance and Leadership and Best Practices of the Institution and Policymaking for better productivity, effectiveness, and robustness of the Institutional Welfare Measures and Guiding Policies.

(ix) Integrity in Research

Maintaining integrity in research is of paramount importance and therefore young researchers need to be imparted adequate education about related issues like plagiarism, duplication, gift and ghost authorships, salami publications, outsourced publishing etc. at an appropriate level of their training. It is hard to achieve quality in research unless awareness about the importance of integrity, transparency and accountability is promoted and incorporated as an inherent component of the research.

(x) Ethics in Research

Just like integrity, ethics in research is a high priority area for maintaining quality and high standards of research. Prime importance needs to be accorded to the issues like confidentiality, privacy, non-maleficence, beneficence, autonomy, and justice without which no credible and substantive research is ever possible. Awareness about these components needs to be created from the very beginning of research and Institutional Ethics' committees need to be vigilant, proactive about any such malpractices in research and therefore be strict in ensuring full compliance with ethics in research.



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(xi) Sensitivity towards Advancement in Analytics for use in Research

Many of the research attempts in the field of Education emphasize on use of empirical research and statistics tools and techniques. With the advent of Artificial Intelligence, the use of analytics especially, involving Machine Learning Techniques, is gaining momentum for handling Big Data in terms of Volume, Variety, Veracity, Velocity and Value. The Institution emphasizes on exposing Faculty members and Research scholars to such advanced analytical tools and techniques. This is achieved through Invited Talks from Academics and Practitioners.

(xii) Quality Circles for Eco System

Quality Circle consists of a small group of Students and Faculty members as facilitators meet voluntarily with a leader on a regular basis, to identify problems, analyze the causes, recommend their solutions to the Research Committee and wherever possible, implement solutions.

4. Committee for Developing and Monitoring the Innovation Eco System for Advanced Research, Pedagogy and Outreach at the R & D Centre

The supervisory committee for the Innovation Eco System at the R & D Centre is the Research Committee consisting of experienced and knowledgeable experts drawn from academia and industry, apart from the Principal and Faculty members of the Institution. The Committee meets periodically to define the operational strategies, develop the road map and monitor the performance of the R & D Centre in respect of the identified drivers and outcome concerning the Innovation Eco System.



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