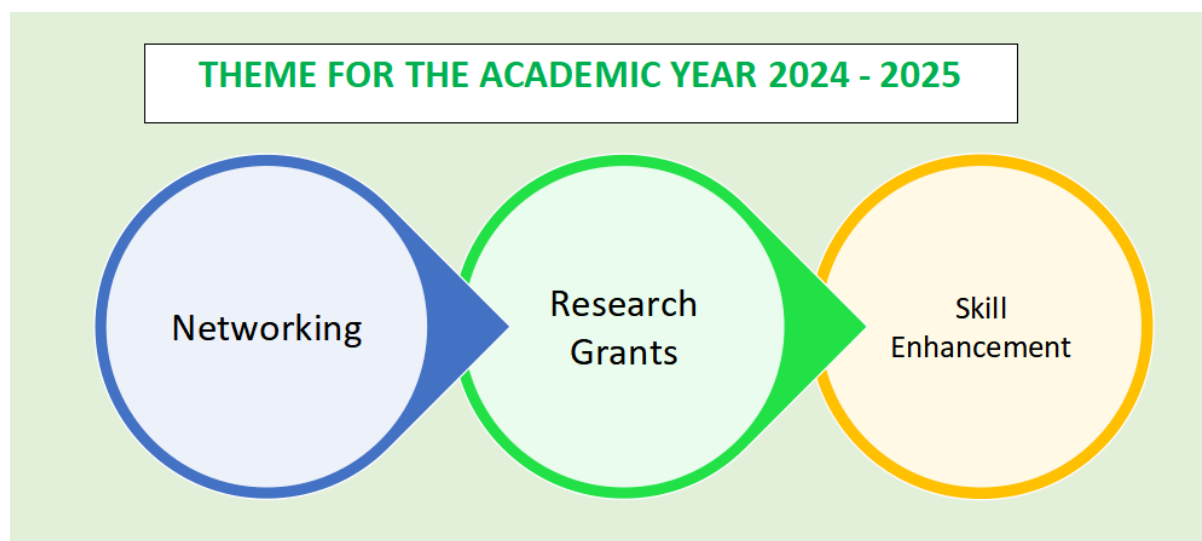


Academic Plan and Evidence of the Success – 2024-2025

THEME FOR THE YEAR



EVIDENCE OF SUCCESS – 2024- 2025

Holy Cross College (Autonomous), Nagercoil championed the theme “**Networking, Research Grants, and Skill Enhancement**” during the academic year 2024–2025 by undertaking relevant proactive initiatives. The college strengthened global academic ties, expanded research output, and empowered all stakeholders with future-ready skills through dynamic workshops and facilitated certifications thus ensuring that both students and faculty stayed ahead of the curve in an ever-evolving world. This report captures the breadth of initiatives and accomplishments inspired by the theme of the academic year, extolling the collective efforts and transformative outcomes achieved across the institution.

Networking

Embracing the theme of “**Networking, Research Grants, and Skill Enhancement**”, Holy Cross College (Autonomous), Nagercoil, introduced networking at the core of its academic and professional development. Over 102 networking-related activities were organized collectively by all departments. These efforts not only enhanced the institution’s visibility and reputation but also created valuable opportunities for the students and faculty to expand their professional linkages and stay abreast of developments in their respective fields.

The college established 85 Memorandums of Understanding (MoUs) with a diverse range of institutions, industries, and NGOs. These collaborations led to the successful organization of conferences, workshops, seminars, endowment lectures, Institution’s

Innovation Council (IIC) initiatives, and research activities. A significant milestone was achieved when Dr. Sr. Mary Gilda, the Secretary, and Dr. Sr. Sahayaselvi, the Principal, traveled to Malaysia to formalize MoUs with Lincoln University and Tunku Abdul Rahman University of Management and Technology. These international agreements greatly enriched the institution by facilitating academic publications, staff and student exchange programmes, career development opportunities, and initiatives in innovation, entrepreneurship, seminars, and workshops.

The **Dean of Academic Affairs** initiated academic collaborations with ten countries and successfully integrated international experts into the Board of Studies of each department. As a result, departments were able to incorporate global perspectives and ensure that curriculum reflected contemporary international trends.

The **Department of Botany**, in collaboration with NGOs such as CREATE Trust, actively campaigned for preservation and propagation of traditional paddy varieties, food security, and the preservation of agricultural heritage. As an outcome, the department inaugurated a *Heritage Paddy Sanctuary* to promote the conservation of traditional agricultural practices.

The Department of Botany also collaborated with ISNA and a CSIR scientist. As a result, it organized a workshop titled “*Unlocking Nature’s Potential: Status, Sustainable Utilization, and Conservation of Biodiversity.*”

The **Department of Zoology** collaborated with the Department of Botany and Microbiology, King Saud University (Saudi Arabia), the Department of Food Science and Biotechnology, Sejong University (South Korea), and the Department of Marine Biology, Sethupathy Government Arts College (Tamil Nadu). As an outcome, the department published three papers in SCIE journals and four in Web of Science-indexed journals.

Dr. Shyla Suganthi, Head, Department of Zoology, offered internship training to four students from the Department of Zoology, Kannur University, Kerala. As a result of her research, she identified a new species of freshwater crab.

The **Department of Chemistry** organized industrial visits to the CSIR–Central Institute of Medicinal and Aromatic Plants in Bengaluru and the Aavin Milk Plant in Nagercoil. These visits provided students with valuable opportunities to interact with scientists and researchers, gain practical insights into dairy processing, and strengthen their professional networks. A total of 33 students benefited from these visits. The department also collaborated

on research projects with various organizations, such as SRM TRP Engineering College, Trichy, Karpagam College of Engineering, Coimbatore, Annai Velankanni College, Tholaya Vattam, Mar Ephraem College of Engineering and Technology, Elavuvilai. As a result, it published ten research articles in reputed journals.

The **Department of Artificial Intelligence & Data Science** organized a two-day workshop on “*Machine Learning and Robotics*” in collaboration with Hiltek Centre for Artificial Intelligence & Robotics Pvt. Ltd. As an outcome, the department developed a college chatbot and introduced QR code labeling for antique library collections.

In collaboration with the Departments of Botany, Zoology, Commerce (Aided), and Commerce (SF), the department has also engaged in interdisciplinary research and academic networking. This collaboration strengthened cross-departmental academic exchange and research initiatives.

The department developed an AI-based chatbot for the college website to facilitate real-time information access, address academic queries, and enhance institutional outreach. This student-led initiative improved communication, response time, and accessibility to college-related information for users.

The **Department of Commerce (Aided)** collaborated with authors from national and international institutions, including Charlton College of Business, University of Massachusetts Dartmouth; College of Healthcare Management and Economics, Gulf Medical University, Ajman (UAE); Jamal Institute of Management; Jamal Mohamed College; and Bharathidasan University. As an outcome, the department co-authored ten books published by Himalaya Publishing House and Taran Publications, and published 19 articles in SSCI-indexed journals in collaboration with research scholars.

The **Department of History** signed a five-year agreement with the Government Museum, Tirunelveli, enabling third-year undergraduate students to undertake internships. Additionally, an MoU was signed with Darrels AM Research and Reverse Engineering LABS Private Limited, Nagercoil. As an outcome, second-year undergraduate and first-year postgraduate students will undergo internships there.

The **Department of Commerce SF-1** conducted a Generic Value-Added Course in partnership with AK Infopark Pvt. Ltd. The students gained knowledge in data analysis, risk management, and business growth strategies which is expected to come handy when these students aspire to excel in business and management

The **Department of English (Aided)** signed an MoU with the International Women's Peace Group (IWPG), as a result of which ten faculty members were trained to be peace educators.

The **Department of Corporate Secretaryship** conducted two career-oriented sessions in collaboration with ICSI and Vallmond Academy. As an outcome, 64 students enrolled as members of the Institute of Company Secretaries of India (ICSI), positioning them to become qualified company secretaries in the coming years.

Research Grants

Holy Cross College (Autonomous), Nagercoil, significantly enhanced its research landscape during the academic year 2024–2025 through an impressive array of 53 research grant activities, funded projects, and collaborative initiatives. Various departments submitted and secured research proposals from state funding agencies such as the Tamil Nadu State Council for Science and Technology and Institutional Research Funds. Faculty members and research scholars also applied for funding from national agencies like DST-FIST and CURIE. Though these particular applications did not secure funding, the process enabled the applicants to develop valuable skills in research proposal writing, supported by several training sessions organized by the institution. The outcome of such drive facilitated capacity building for obtaining research grants.

The college also provided internal research funds to both scholars and faculty to support their research and patent-related work. These were disbursed through the **Crossian Research Seed Money Scheme Projects (CRSMSP)**. Under this scheme, a grant of ₹10,000 is awarded to each scholar, while faculty members receive ₹1,00,000 each to support their research endeavors.

The following members were beneficiaries:

1. **Ms. P. Renisa & Dr. S. Sujitha**, Department of Mathematics
CRSMSP 2024–2025/Scholars-1: Sensitivity Analysis on the Parameters of Zika Virus Dissemination Using Graphical Modeling
2. **Ms. R. Feyolah Herin & Dr. S. Sebastiammal**, Department of Physics
CRSMSP 2024–2025/Scholars-2: Novel Green Synthesis of Zinc Oxide Nanoparticles Capped with Chitosan for Enhanced Biomedical Potential
3. **Ms. A. S. Shalfia Judit & Dr. S. Sebastiammal**, Department of Physics
CRSMSP 2024–2025/Scholars-3: Bio-Fabrication of Hydroxyapatite Composites

Infused with Solanum nigrum Extract for Enhanced Synergistic Antimicrobial Activity in Biomedical Applications

4. **Ms. S. Bashidha Banu & Dr. Bojasa A. Rosy**, Department of Botany
*CRSMSP 2024–2025/Scholars-4: *Chemoprofiling and Biosynthesis of Plant Callus-Derived Nanoparticles from *Chassalia curviflora**
5. **Ms. Benicka Prakash & Dr. J. Vinoliya Josephine Mary**, Department of Zoology
*CRSMSP 2024–2025/Scholars-5: *Purification, Characterization, and Antibacterial Property of a Novel Lectin Isolated from the Marine Crab *Tumidodromia dromia**
6. **Ms. T. Fathima Munovara & Dr. H. Jimsy Asha**, Department of English
CRSMSP 2024–2025/Scholars-6: Scripted Identities: The Devadasi Woman in Literature and Cinema
7. **Ms. S. Anusha Mini & Dr. Sr. S. Sahayaselvi**, Department of Commerce
CRSMSP 2024–2025/Scholars-7: The Synergy between Artificial Intelligence Adoption and Green Entrepreneurship for Sustainable Business Growth
8. **Dr. A. Anat Jaslin Jini (PI) & Dr. A. Jancy Vini (Co-PI)**, Department of Mathematics
CRSMSP 2024–2025/Faculty-1: Minimizing Redundancy and Maximizing Coverage: A Computational Approach Using Dominating Sets
9. **Dr. M. Abila Jeba Queen (PI)**, Department of Physics
CRSMSP 2024–2025/Faculty-2: Eco-Friendly Synthesis of Calcium Nanoparticles Using Plant Extracts: Applications in Photocatalysis and Environmental Remediation

As part of this initiative, both faculty and scholars are expected to collectively publish at least 20 research papers in top-tier journals in the coming years.

Other Research Achievements:

- **S. T. Sreenidhi (English), S. C. Benitlin Shalom (Chemistry), S. Imalin, and S. Jency (Mathematics)** were awarded the **UGC National Fellowship for Single Girl Child** under the **Savitribai Jyotirao Phule Fellowship Scheme**. Each received ₹42,000, enabling them to pursue their research without financial constraints.
- **Three postgraduate student projects** were sanctioned ₹7,500 each by the Tamil Nadu State Council for Science and Technology.
- **Ms. Anusha Mini (Commerce) and Ms. Santhiya (Economics)**, both research scholars, were awarded ₹60,000 each in funding from the Tamil Nadu State Council for Science and Technology.

- To promote research related to **patents**, the college provided **₹1,65,370** in financial support to faculty members and research scholars. As a result, **14 patents** were filed during the academic year 2024–2025.
- To recognize and encourage quality **research publications**, the college awarded **₹1.23 lakhs** to **52 faculty members** who published in high-impact **Q1 and Q2 journals**. As a result:
 - **36 papers** were published in **SCI-indexed journals**
 - **29 in Scopus**
 - **14 in Web of Science**
 - **123 in UGC-CARE-listed journals**
 - **24 in other peer-reviewed journals**
- Faculty members also contributed:
 - **185 papers** in conference proceedings (139 full-length papers and 46 abstracts)
 - **52 books** published
 - **59 book chapters** authored

These accomplishments reflect the institution's strong commitment to fostering a culture of research excellence and academic impact.

Skill Enhancement

Holy Cross College (Autonomous), Nagercoil, focused on building student skills through 118 programmes on soft skills, career guidance, competitive examinations, cybersecurity, and communication. Various departments also organized a wide range of workshops, hands-on training sessions, industrial visits, and value-added courses to enhance technical competency, foster innovation, and promote industry readiness among students. These initiatives not only bridged academic learning with practical application but also equipped students with essential 21st-century skills for lifelong success.

- In view of the NAAC accreditation process, Holy Cross College (Autonomous), Nagercoil, undertook a focused initiative to highlight the talents, skills, and capabilities of its student community. As part of this initiative, the college established three distinct domains of excellence: Academic Excellence, Entrepreneurial Excellence, and Service-Learning Excellence. These platforms have paved the way for the holistic development of students, encouraging them to showcase their achievements and innovations. The NAAC Peer Team highly appreciated this initiative, recognizing it as a meaningful reflection of the institution's commitment to quality education and student empowerment. At the culmination of the successful Peer Team Visit students of Holy

Cross College presented a spectacular cultural programme in the evening. The Peer Team members were deeply impressed by the performance and remarked that the students of the college were exceptionally talented and skillful.

- Dance and creative skills were showcased through department-wise cultural programmes organized for occasions such as Teacher's Day, the Feast of the Holy Cross, College Day, and several others. These cultural programmes fostered creativity, strengthened teamwork, promoted unity among students, and encouraged active participation in Student Council activities.
- The Department of History conducted a model-making activity to recreate the masterpieces of various civilizations. Students prepared miniature models using materials such as cardboard, clay, and eco-friendly components to depict architectural marvels including pyramids, ziggurats, Greek temples, and Roman amphitheatres. This activity showcased students' creativity and historical knowledge, enhancing their understanding of ancient architecture through hands-on learning.
- The students of the Department of Botany implemented QR codes for tree and plant identification. This initiative provided an interactive learning experience, allowing students and visitors to access detailed information about campus flora with just a click. They also created a Tulsi Garden that preserves 28 varieties of Tulsi, categorized by morphology, aroma, and medicinal properties. Students from the Department of Botany received coaching for NET, SET, and TNPSC examinations to enhance their academic and career prospects. As an outcome, three postgraduate students enrolled in a coaching centre in Thiruvananthapuram for their exam preparation.
- The Department of Zoology conducted skill-based training sessions in apiculture, sericulture, and vermicomposting for the students. As an outcome, the initiative generated an income of ₹10,000 while simultaneously equipping students with practical knowledge and hands-on experience in these sustainable practices.
- Ten sensor-based water taps were installed by students of the Department of Physics in Green Paradise Park. This initiative is a commendable example of experiential learning, offering students hands-on experience with sustainable technology. Installing solar lights in adopted villages was another meaningful outreach effort, providing renewable energy solutions to benefit the local community. These projects reflected a strong commitment to practical, community-centered education. Additionally, the department maintains a display of rare meteorites in the Physics Museum. As an outcome, students developed valuable technical skills while contributing to sustainable community development, and the department enhanced its educational resources to inspire scientific curiosity among students and visitors.

- The students of the Department of Computer Science developed an application for student elections and successfully conducted the election using it. This project provided valuable hands-on experience for the students involved. As an outcome, the students enhanced their practical skills in software development and contributed to a smooth, transparent election process.
- The Department of English conducted the inter-class drama competition *Scene Stealers*. As an outcome, students developed teamwork, self-confidence, and communication skills. The English Cuisine Competition enhanced students' culinary abilities. As an outcome, they improved their food preparation techniques, knife skills, and understanding of food safety practices. The *Nature's Palette* painting competition encouraged the use of natural paints. As an outcome, students became more environmentally conscious and explored sustainable artistic methods. The *Speak with Confidence: English & Foreign Language Mastery* programme was organized in collaboration with the WISE project. As an outcome, students gained greater confidence in communicating in English and foreign languages.
- The Department of English Literature with Media Communication hand-painted a selfie point, and a *Crossian Frame* banner was released. They also conducted the *Crossian Frame – Photography Workshop* to equip students with practical skills in photography. As an outcome, students participated in the *Crossian Frame – Photography Contest*, where they showcased their creativity, enhanced their technical photography skills, and promoted visual storytelling. The department also initiated *Bringing Walls to Life – Wall Art* to enhance the aesthetic appeal of the college campus through vibrant wall paintings. As an outcome, students transformed blank walls into artistic expressions that conveyed themes of energy, unity, and campus spirit.
- The Department of English SF conducted *HUCKSTER KIOSK 2024* – a Student Entrepreneurial Fair to cultivate entrepreneurial and business management skills among students. As an outcome, students successfully set up and managed kiosks featuring homemade and locally sourced products, particularly gourmet food items. They also gained practical knowledge in pricing strategies, consumer behaviour analysis, and effective marketing techniques.
- The Department of Commerce conducted a Saree Pre-Pleating Course under the WISE (Women's Initiative for Skill Enhancement) programme to motivate laywomen to start their own businesses or become entrepreneurs. As a result, 11 students started their own businesses and earned an income of ₹5,500. They also successfully organized an orientation programme to guide students on various professional and postgraduate pathways, including Chartered Accountancy (CA), Cost and Management Accountancy

(CMA), Master of Business Administration (MBA), and Tamil Nadu Common Entrance Test (TANCET). As a result, 4 students enrolled in the CA programme, and 19 students opted for the MBA programme. This outcome highlights the effectiveness of the session in motivating students to pursue professional qualifications and higher studies, equipping them for competitive career opportunities in the field of commerce.

- A total of 563 students registered for MOOCs, with 162 successfully completing their courses. Additionally, 224 students participated in summer training programmes; 20 students underwent in-plant training, and 23 students went on industrial visits.
 - In terms of competitive examinations, four students qualified for the NET/SET.
 - The placement drive resulted in 177 students securing on-campus placements, 8 students obtaining off-campus opportunities, and 2 students entering government service.
 - Students also showcased their talents in extracurricular activities, winning 8 academic prizes, 66 cultural awards, and 6 quiz prizes at intercollegiate events.
 - 100 Startsteps ventures were successfully launched.
 - To enhance student skills, 141 capability enhancement programmes focusing on self-skills, career guidance, competitive exams, and cybersecurity were organized.
 - Students' skills were further developed and showcased through 12 certificate courses and 16 generic value-added courses. As evidence of success, they acquired essential 21st-century skills such as Critical Thinking and Problem-Solving, Communication and Collaboration, Digital Literacy, Creativity and Innovation, Leadership and Responsibility, and Adaptability and Initiative. These courses have significantly contributed to improving students' employability and lifelong learning capabilities.
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- Our sports students demonstrated exceptional talent and athleticism by participating in 29 competitions at the international, national, state, university, and district levels. Their commendable performances earned a total of 35 medals, including 10 gold, 12 silver, and 13 bronze. In recognition of their achievements, they collectively received a cash award of ₹91,000. This remarkable accomplishment reflects the college's on-going commitment to promoting excellence in sports. As an outcome, the college's reputation in athletics has been significantly enhanced, inspiring more students to actively participate in sports and pursue excellence.

In 2024–2025, Holy Cross College (Autonomous), Nagercoil, made great progress under the theme “*Networking, Research Grants, and Skill Enhancement.*” The college built

strong partnerships with other institutions and industries, opening up new opportunities for learning, research, and exchange. Faculty and students received several research grants, enabling them to work on important projects and publish their findings. Many workshops, training programmes, and hands-on activities helped students build useful skills for their careers and personal growth. These efforts have made the college a stronger, more connected, and forward-thinking institution, ready to meet the needs of today's world.

Adopting institution themes for each academic year has been a tradition of the institution over the years. Through the institution's focus around the themes of 'Networking, Research Grants, and Skill Enhancement' for the academic year 2024-2025 engaged the college in achieving holistic outcomes. Such year wise focussed themes in the ensuing years will ensure the institution to become an abode of fruitful educational services. From the above compilation it could be understood that modest results have been achieved during this academic year. Our steady resolve and unwavering efforts will ensure spectacular yield in the near future too.

"When we connect minds, invest in knowledge, and build skills, we create a future where learning leads to lasting impact."

"At Holy Cross College (Autonomous), Nagercoil, students don't just learn they grow, create, and lead. With strong academic support, real-world research opportunities, global collaborations, and a focus on skill development, the college shapes students not just for a degree, but for a successful and meaningful future. Join us and become part of a community that empowers you to reach your full potential."