

NATIONAL COLLEGE (AUTONOMOUS)

Dindigul Road, Karumandapam, Tiruchirappalli, Tamil Nadu – 620 001

NAAC Accredited 'A+' Grade | Established 1919

**ACADEMIC AND ADMINISTRATIVE AUDIT
REPORT****Academic Year 2022–2023**

Date of Audit
03 June 2023**External Peer Team Members****Member 1:****Dr. M. Prashanthi Devi**, Associate Professor,
Department of Environmental Science and
Management, Bharathidasan University,
Tiruchirappalli – 620024.**Member 2:****Dr. K. Alex**, Controller of Examinations and
Associate Professor of Commerce, St. Joseph's
College (Autonomous), Tiruchirappalli - 620001.**Academic and Administrative Audit - Annual External Peer Review**

1. PREAMBLE

An External Peer Team comprising two senior academic experts, **Dr. M. Prashanthi Devi**, Associate Professor, Department of Environmental Science and Management, Bharathidasan University, Tiruchirappalli – 620024 and **Dr. K. Alex**, Controller of Examinations and Associate Professor of Commerce, St. Joseph's College (Autonomous), Tiruchirappalli – 620001, visited National College (Autonomous), Dindigul Road, Karumandapam, Tiruchirappalli – 620 001 on **03 June 2023** to conduct the Annual Academic and Administrative Audit for the year 2022–2023. The audit was carried out in accordance with the guidelines prescribed by the University Grants Commission (UGC) for Autonomous Colleges and the institution's internal quality assurance framework.

Founded in 1919, National College (Autonomous) is one of the oldest institutions of higher learning in Tamil Nadu. The college holds NAAC 'A+' accreditation and is affiliated to Bharathidasan University, Tiruchirappalli. The audit team examined the academic, administrative, research, and co-curricular activities of the institution for the academic year under review.

2. ACADEMIC GOVERNANCE

2.1 Academic Council Meetings

The Academic Council met on two occasions during the year 2022–2023:

S. No.	Date of Meeting
1.	14 July 2022
2.	17 August 2023

2.2 Finance Committee Meeting

The Finance Committee convened once during the academic year:

S. No.	Date of Meeting
1.	03 April 2023

2.3 Governing Board Meeting

The Governing Board meeting was held on:

S. No.	Date of Meeting
1.	10 April 2023

2.4 Key Institutional Events

The following key institutional events were held during 2022–2023:

Event	Date
College Day	20 April 2023
Sports Day	13 February 2023
Graduation Day (Arts)	05 April 2024
Graduation Day (Science)	06 April 2024
International Women's Day	08 March 2023

3. EXAMINATION RESULTS (BATCH 2019–2022)

The results of the final year UG programmes for the batch 2019–2022 were commendable. B.Sc. Statistics and B.A. Tamil recorded a 100% pass percentage. B.Com. with Computer Application recorded 98.28%, followed by Computer Application at 96.75% and B.Sc. Mathematics at 98.63%. The overall performance reflects sustained academic rigour across departments.

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3.1 UG Final Year Results – Batch 2019–2022

S.No.	Department	Registered	Passed	Pass %
1	Biotechnology	39	38	97.44
2	Botany	20	18	90.00
3	Business Administration	85	68	80.00
4	Chemistry	74	65	87.84
5	Commerce	267	245	91.76
6	Commerce with Computer Application	58	57	98.28
7	Computer Application	154	149	96.75
8	Computer Science	151	144	95.36
9	Economics	45	39	86.67
10	English	66	51	77.27
11	Geology	83	83	100.00
12	History	41	35	85.37
13	Information Technology	24	21	87.50
14	Mathematics	73	72	98.63
15	Microbiology	10	9	90.00
16	Physical Education	71	58	81.69
17	Physics	59	45	76.27
18	Statistics	11	11	100.00
19	Tamil	24	24	100.00
20	Tamil Literature	7	6	85.71
21	Zoology	29	28	96.55

3.2 PG Final Year Results – Batch 2019–2022

S.No.	Department	Registered	Passed	Pass %
1	Applied Geology	13	13	100.00
2	Biotechnology	24	24	100.00
3	Botany	8	8	100.00
4	Chemistry	51	44	86.27
5	Commerce	30	21	70.00
6	Computer Science	26	25	96.15
7	English	46	45	97.83
8	Financial Management	2	2	100.00
9	Mathematics	39	36	92.31
10	Physics	41	39	95.12
11	Tamil	4	4	100.00
12	Yoga	2	2	100.00
13	Zoology	11	11	100.00

The college recorded 20 Bharathidasan University Rank Holders for the academic year 2022–2023.

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4. ASSOCIATION AND DEPARTMENTAL ACTIVITIES – 2022–2023

All departments conducted their respective association meetings and organised a wide range of academic, co-curricular, and outreach activities during the year. A consolidated summary of programmes is presented below.

Programme / Event	Date
Botany Association Meeting	24.09.2022
National Conference: 'Recent Advances in Structural Biology' (Two-Day)	04–05.11.2022
Hands-on Training in Apiculture (One-Day)	29.10.2022
Conservation of Biodiversity Seminar – Dept. of Biotechnology	23.09.2022
Workshop on Life Skills for Teens (One-Day)	06.04.2022
House-in Training on Spectroscopy and its Perspectives	27.08.2022
State-Level Workshop on Entrepreneurial Development & Cleansing Products	25.08.2022
Chemistry Department Association Meeting	10.09.2022
MOU with Sri Sai Power and Equipment Pvt. Ltd., Trichy	26.09.2022
One-Day Orientation Programme	24.02.2022
Physics Association Meeting	15.10.2022
National Science Day Celebration	28.02.2023
Industrial/Educational Visit – VSSC (ISRO) & Priyadarshini Planetarium, Trivandrum	16–18.03.2023
Educational Visit – CSIR-CECRI, Karaikudi (Physics UAP)	16.03.2023
Zoology Association Meeting	22.09.2022
Business Administration Association Meeting	09.07.2022
State-Level Essay Writing Competition	22.10.2022
Special Lecture on GST – Understanding Goods & Service Tax	31.10.2022
Workshop on Software Testing Tools	22–23.09.2022
Seminar – Better Eyes for a Better Life	24.09.2022
Computer Science Student Association Meeting	14.09.2022
Workshop on PC Hardware and Troubleshooting (Two-Day)	17–18.10.2022
B.Voc (ICT) Association Meeting	05.09.2022
Commerce Association Meeting	25.08.2022
Commerce Marketing Club Inauguration	19.08.2022
Awareness Programme on Business Law Aspects	08.10.2022
Student Orientation Program – Commerce	21.09.2022
Student Enrichment Program – Be a Winner	12.10.2022
Inauguration of Commerce Debate Club	21.10.2022
BPS Association Meeting	03.08.2022
ACS Study Centre Career Awareness Programme	15.09.2022
Literary Association Meeting – English Dept.	14.09.2022
Workshop: Mapping Language and Literature Curriculum	14.12.2022
Special Lecture on Communication Skills – Hindi Dept.	18.10.2022
History Association Meeting	21.09.2022

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Programme / Event	Date
Mathematics Association Inauguration	17.09.2022
Interdepartmental Aptitude Quiz – Mathematics Dept.	19.10.2022
Junior Jaycees Club & Rotaract – Wellbeing and Happiness Programme	20.05.2022
Orientation & Communication Skills Workshop – Junior Jaycees	19.09.2022
Rotaract Club Team Orientation Programme	17.08.2022
Rotaract Regional Forum	05.11.2022
World Environment Day – Physical Education Dept.	05.06.2022
International Yoga Day	21.06.2022
Orientation for Physical Education Teachers – Don Bosco Institutions	16.10.2022
Teachers' Day Celebration	05.09.2022
75th Independence Day Celebration	15.08.2022
Navaratri Festival	26.09–05.10.2022
Workshop on Basic Microbiology Techniques (One-Day)	18.05.2023
Workshop on Ornamental Fish Culture Technology	28.04.2022
Seminar on Food Adulterants, Analysis & Auditing	09.04.2022
IQAC Lecture Series: Sustaining Quality in Higher Education	26.02.2022
Seminar on Personal and Environmental Hygiene – Computer Science	18.03.2022

5. WORKSHOPS AND SEMINARS CONDUCTED – 2022–2023

The following notable workshops and seminars were organised by various departments during the academic year 2022–2023:

- One-Day Hands-on Training in Apiculture – Dept. of Biotechnology & Microbiology (29.10.2022)
- Two-Day National Level Conference on 'Recent Advances in Structural Biology' – Dept. of Biotechnology & Microbiology (04–05.11.2022)
- State-Level Workshop on 'Entrepreneurial Development' and Hands-on Training in Cleansing Products under DBT STAR College Scheme – Dept. of Chemistry (25.08.2022)
- One-Day Workshop on Clinical Andrology Techniques – Dept. of Biotechnology & Microbiology (21.12.2022)
- Hands-on Workshop on Clinical Andrology – Dept. of Biotechnology & Microbiology (04.03.2023)
- Workshop on Mammalian Cell Culture Techniques – Dept. of Biotechnology & Microbiology (20–25.03.2023)
- Two-Day Workshop on 'New Developments in Chemistry' (24.02.2023)
- Two-Day Workshop on 'Freelancing Software Developer & Alumnus' – Dept. of Computer Science (22.02.2023)
- Two-Day Workshop on 'Experimental Models for Understanding Animal Development and Disease' – Dept. of Zoology (05–06.03.2023)

6. RESEARCH PUBLICATIONS – 2022–2023

The faculty of the college demonstrated a robust research output during 2022–2023. Publications were recorded across multiple departments in reputed national and international peer-reviewed journals, including several with significant impact factors. A department-wise summary is presented below.

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6.1 Department of Biotechnology & Microbiology

Author(s)	Title (abridged)	Journal	Impact Factor
Mariappan Murali et al.	Characterization of [Ru(bpy) ₂ (diamine)] ²⁺ complexes – DNA binding & anticancer properties	Polyhedron (Sep 2022)	2.975
K. Jagajjanani Rao, Varuna Kumaravel et al.	Biosynthesis & photocatalytic evaluation of ZnO nanoparticles using banana flower perianth	J. Cleaner Production (Dec 2022)	11.07
Ramalingam Ponnusamy, Varuna Kumaravel et al.	Synthesis of cellulose acetate/propionate/butyrate for dye removal	AIP Conf. Proceedings (Nov 2022)	0.402
J. Martin Sam Gnanaraj, K. Varuna et al.	Facile synthesis of reduced graphene oxide from Azadirachta indica	J. Materials Science: Materials in Electronics (Aug 2022)	2.779
Thangavel Rajagopal, M.A. Akbarsha et al.	Histomorphology & Chemical Constituents of Interdigital Gland of Vembur Sheep	Vet. Sci. (Nov 2022)	2.44
Perumalsamy Balaji, M.A. Akbarsha et al.	Efficiency of GrowDex® nanofibrillar cellulosic hydrogel in 3D tumour spheroids	AIMS Biophysics (Aug 2022)	3.9
Mahalingam Srinivasan, M.A. Akbarsha et al.	Exoproteome of Staphylococcus pasteuri from cervical mucus in water buffalo	Biomolecules (Mar 2022)	4.5
Sathish Sankar, Vasanth Dhakshinamoorthy et al.	Malignant odontogenic tumors: Epigenetics in disease and therapy	Acta Odontologica Scandinavica (Jul 2022)	—

6.2 Department of Botany

Author(s)	Title (abridged)	Journal	Impact Factor
R. Nagalakshmi, S.P. Anand	Physicochemical properties of Senna auriculata from natural & polluted sources	J. Stress Physiology & Biochemistry (Sep 2022)	—
S.P. Anand, R. Nagalakshmi	Heavy metals in soil & plant (Senna auriculata) in Tiruchirappalli	SAARC J. Agriculture (Jul 2022)	—
K. Jagajjanani Rao, Senthil Kumar Sadasivam et al.	Biosynthesis & photocatalytic evaluation of ZnO nanoparticles	J. Cleaner Production (Dec 2022)	11.07
J. Martin Sam Gnanaraj, S. Senthil Kumar et al.	Reduced graphene oxide from Azadirachta indica for optical power limiting	J. Materials Science: Materials in Electronics (Aug 2022)	2.8
Shantkriti Srinivasan, Senthil Kumar Sadasivam et al.	Bio-decolorization of textile azo dyes using Lysinibacillus sphaericus	Frontiers in Environmental Science (Oct 2022)	5.4

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6.3 Department of Chemistry

Author(s)	Title (abridged)	Journal	Impact Factor
M. Murali, J. Latha et al.	Characterization of Ru(bpy) ₂ (diamine)] ²⁺ complexes – DNA binding & anticancer properties	Polyhedron (2022)	2.975
S. Sangeetha, M. Murali	Cytotoxic Ruthenium(II) complexes – pH-dependent DNA binding	Inorg. Chem. 61 (2022)	5.436
B. Selvakumaran, M. Murali	Functional mimic for amine and catechol oxidases – mononuclear copper(II) complex	Inorg. Chim. Acta 534 (2022)	3.118
D. Saravanan et al.	Rational modification of chitosan for Cr(VI) remediation	J. Hazardous Materials Advances (2022)	—
D. Saravanan et al.	Chitosan coated cotton-straw-biochar as adsorbent for reactive red dye	Results in Engineering (2022)	—
D. Saravanan, Ravin Jugade et al.	Adsorptive removal of As(III) by Cellulose-Sn(IV) Biocomposite	J. Compos. Sci. (2023)	—
D. Saravanan et al.	Dual modifications of chitosan with PLK for cyanide ion removal	Int. J. Biological Macromolecules (2022)	—
D. Saravanan, R.M. Jugade	Adsorption of brilliant green dye by used-tea-powder	J. Water Supply: Research & Technology-Aqua (2022)	—
K. Kavitha, H.B. Sherine, S. Rajendran	Rosa damascena as corrosion inhibitor for mild steel	Int. J. Corrosion & Scale Inhibition (Jun 2022)	2.813
K. Kavitha, H.B. Sherine, S. Rajendran	Aqueous extract of Cassia fistula flower as green corrosion inhibitor	Int. J. Corrosion & Scale Inhibition (Jun 2022)	2.813
Dr. M. Esakkiammal	Qualitative identification and antibacterial study of Catharanthus roseus roots	J. for Basic Sciences (Oct 2022)	—

6.4 Department of Zoology

Author(s)	Title (abridged)	Journal	Year
Lavanya R. & Gokula V.	Plant species preferred for sleeping by Mysore Slender Loris in Keelaveliyur, Tamil Nadu	Indian Journal of Natural Sciences	2022
Gokula V.	Breeding details of six waterbird species at Vaduvur Lake, Tamil Nadu	Indian Journal of Natural Sciences	2022
Gokula V. & Muthukrishnan V.	Roadkill sightings of Madurai Shieldtail & Palani Mountain Burrowing Snake	Zoo's Print 37(1)	2022

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Author(s)	Title (abridged)	Journal	Year
M. Sivasankari, V. Gokula et al.	Biochemical composition of commercial freshwater & marine fishes from Tiruchirappalli	Indian Journal of Natural Sciences	2022
Dr. D. Kandasami	Employment Status: The pandemic situation in India	Research & Review: Human Resource & Labour Management	2022

7. NCC, NSS AND CO-CURRICULAR ACTIVITIES

7.1 International Women's Day Celebration

International Women's Day was celebrated at National College on 08 March 2023. The Chief Guest was Mrs. Fathima Bathool Maluk, Secretary and Chief Executive Officer, Master Group of Institutions. Outstanding faculty members and students were recognized, and several intra-departmental events were held. The Department of Commerce won the National College Centenary Women's Day Rolling Trophy for overall performance.

7.2 NCC Activities

The college NCC comprises five units. The units conducted a wide spectrum of training, discipline, and social service activities during 2022–2023. Key highlights include:

- Cyber Crime Awareness Programme in association with Cyber Crime Cell, Trichy (28.07.2022)
- 33 cadets attended the Combined Annual Training Camp at Idayapatti, Madurai (29.07.2022 – 07.08.2022) and won the Overall Championship, including Best Drill Contingent, Best Cadet Championship, Best in Shooting (.22 rifle), Best Cultural Team, and Volleyball
- 5 cadets attended VSC-IGC; Leading Flight Cadet Tamilselvan V secured a Silver Medal in Aeromodelling
- Two B2 Flight cadets, Mr. Sugumar and Mr. Balachandru, joined the Indian Air Force as Airmen; Mr. Sugumar achieved Batch Topper status at Air Force Station, Jalahalli, Karnataka (felicitated on 10.08.2022)
- Cadets participated in Har-Ghar-Tiranga campaign on 75th Independence Day (15.08.2022)
- Unity Run organized to commemorate Sardar Vallabhbhai Patel's contributions (31.10.2022)
- Blood Donation Camp organized through NCC Group Headquarters at Government Hospital, Trichy (27.11.2022)
- 10 cadets rendered social service at Sabarimala Ayyappan Temple, Kerala (30.12.2022 – 10.01.2023)
- Flight Cadet Keerthana and Flight Cadet Dhivya participated in the Marina Republic Day Parade, Chennai (26.01.2023)
- 3 cadets participated in the Trichy District Republic Day Parade (26.01.2023)
- Cadet Under Officer Arunachalam S attended Air Force Attachment Camp at Air Force Station, Tambaram (19–30.12.2022)

8. AUDIT OBSERVATIONS AND COMMENDATIONS

Based on the documents reviewed and interactions held during the visit on 03 June 2023, the External Peer Team records the following observations:

8.1 Strengths Observed

- The Academic Council, Finance Committee, and Governing Board met regularly, ensuring robust academic governance and financial oversight.

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- Examination results for the 2019–2022 batch were commendable. Multiple PG departments – Applied Geology, Biotechnology, Botany, F.M., Tamil, Yoga, and Zoology – recorded a 100% pass rate.
- A strong research culture is evident with publications in high-impact journals across Biotechnology, Chemistry, Botany, and Zoology departments.
- Departmental associations were active across all disciplines, with workshops, seminars, MOU signings, industrial visits, and invited lectures enriching the academic experience.
- NCC units demonstrated exemplary discipline and service ethos, winning the Combined Annual Training Camp Overall Championship and securing a Silver Medal in Aeromodelling.
- The institution actively promotes gender equity, as reflected in the International Women's Day celebration and recognition of outstanding faculty and students.
- IQAC's initiatives in sustaining quality culture, including its lecture series on quality in higher education, were noted with appreciation.

8.2 Areas for Further Development

- Departments such as Physics (76.27%) and English (77.27%) at the UG level, and Commerce (70.00%) at the PG level, may benefit from targeted academic interventions, additional mentoring, and remedial coaching to improve pass percentages.
- The college may consider expanding its MOU portfolio to include more industry and research institution linkages for enhanced student placement and research collaboration.
- It is recommended that departmental association activities be systematically documented with photograph-based records and outcome assessments to facilitate evidence-based accreditation reporting.

9. CONCLUSION

The External Peer Team records its appreciation for the warm reception and the comprehensive information made available during the audit visit. National College (Autonomous) continues to uphold the highest standards of academic excellence, research productivity, and student development. The institution's governance structures are functioning effectively, and the breadth of co-curricular activities reflects a vibrant campus culture.

The college is commended for its sustained performance and is encouraged to build on its strengths while addressing the areas identified for improvement. The External Peer Team expresses confidence in the institution's ability to continue its trajectory of academic and institutional excellence.

External Peer Team Member 1

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External Peer Team Member 2

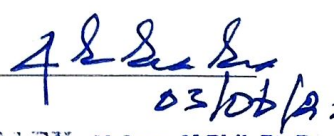
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