**DEPARTMENT PROFILE**

**NAME OF THE DEPARTMENT:**

**DEPARTMENT OF MATHEMATICS, N.C. AUTONOMOUS COLLEGE, JAJPUR**

**OUR MISSION:**

"Our mission at the Mathematics Department of N.C. Autonomous College is to cultivate a vibrant academic community that fosters tolerance, fellow-feeling, and mutual accommodation of interests among students. We are dedicated to providing courses, curriculum, and instructional practices that support effective student learning across diverse backgrounds and disciplines.

Our department offers a comprehensive range of courses and curricula tailored to meet the needs of students at various academic levels and from different focus areas. Whether students are pursuing undergraduate or graduate degrees in Mathematics or Statistics, studying in Science and Engineering programs, or exploring the Humanities, Arts, and Social Sciences, we strive to provide relevant and engaging mathematical education that prepares them for success in their chosen fields.

Furthermore, we recognize the critical role of mathematics education in shaping future generations of teachers. Therefore, we offer a core set of mathematics courses and curricula designed to equip future educators with the knowledge and skills necessary to inspire and empower the next generation of learners.

Through our commitment to excellence in teaching, research, and community engagement, we aim to cultivate critical thinking, problem-solving abilities, and a lifelong passion for mathematics in our students. By promoting interdisciplinary collaboration, inclusivity, and innovation, we aspire to uphold the highest standards of academic excellence and contribute to the advancement of mathematical knowledge and its applications in society."

**OUR VISION:**

1. **Promoting Interdisciplinary Collaboration**: We envision fostering interdisciplinary collaboration within the department and across other disciplines, embracing the interconnected nature of mathematics with fields such as computer science, physics, economics, and beyond. This collaboration will enhance research opportunities and prepare students for diverse career pathways.
2. **Advancing Technological Integration**: We are committed to integrating cutting-edge technology into our curriculum and research, equipping students with the computational and analytical skills necessary for success in the digital age. Through the incorporation of software tools, simulations, and data analysis techniques, we aim to enhance learning outcomes and prepare students for emerging challenges in mathematics and related fields.
3. **Dedication to Inclusivity and Diversity**: Our department is dedicated to fostering an inclusive and diverse learning environment where all students feel valued and supported. We strive to recruit and retain a diverse faculty and student body, recognizing the strength that comes from different perspectives and backgrounds. Through inclusive pedagogy and community-building initiatives, we aim to empower every student to reach their full potential in mathematics and beyond.
4. **Engagement with the Community**: We aim to actively engage with the local community through outreach programs, educational partnerships, and service initiatives. By sharing our passion for mathematics with the broader community, we seek to inspire future generations of mathematicians, educators, and problem solvers. Through collaborative projects and outreach activities, we aim to demonstrate the relevance and impact of mathematics in addressing real-world challenges and enriching society.
5. **Continuous Improvement and Innovation**: We are committed to continuous improvement and innovation in our teaching, research, and service endeavours. Through ongoing assessment and evaluation, we seek to enhance the quality and effectiveness of our programs, ensuring that they remain responsive to the evolving needs of students and society. By embracing new pedagogical approaches, research methodologies, and technological advancements, we strive to stay at the forefront of mathematical education and scholarship.

These visions reflect our commitment to excellence, inclusivity, innovation, and community engagement, positioning our Mathematics Department as a leader in higher education and academic research.

**HISTORY OF THE DEPARTMENT:**

N.C. Autonomous College, Jajpur came into being in 1946 and Mathematics was introduced as a Honours subject. Later the Department of mathematics stated with PG course.

**COURSES OFFERED: UG MATHEMATICS AND PG MATHEMATICS**

**YEAR OPENING OF HONOURS SUBJECT: 1967-68**

**YEAR OPENING OF PG SUBJECT: 1990-91**

**STUDENT STRENGTH UG:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SL.NO** | **COURSE** | **YEAR** | **SANCTIONED STRENGTH** | **STUDENTS ADMITTED**  |
| **01** | **Mathematics Honours** | **2021-22** | **40** | **27** |
| **02** | **Mathematics Honours** | **2022-23** | **40** | **37** |
| **03** | **Mathematics Honours** | **2023-24** | **48** | **43** |

**STUDENT STRENGTH PG:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SL.NO** | **COURSE** | **YEAR** | **SANCTIONED STRENGTH** | **STUDENTS ADMITTED**  |
| **01** | **PG Mathematics** | **2018-19** | **24** | **21** |
| **02** | **PG Mathematics** | **2019-20** | **24** | **21** |
| **03** | **PG Mathematics** | **2020-21** | **24** | **22** |
| **04** | **PG Mathematics** | **2021-22** | **24** | **23** |
| **05** | **PG Mathematics** | **2022-23** | **24** | **22** |
| **06** | **PG Mathematics** | **2023-24** | **24** | **24** |

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| **UG** |
| **NAME OF THE PAPAER** | **MARKS** | **CREDIT POINTS** |
|  | **INTERNAL** | **SEMESTER** |  |
| **SEMESTER-1** |
| **C-I: Calculus and practical** | **15** | **60+25** | **06 (4+2)** |
| **C-II: Discrete Mathematics and Tutorial** | **20** | **80** | **06 (5+1)**  |
| **GE-I: Generic Elective and Tutorial** | **20** | **80** | **06 (5+1)** |
| **AECC-I** | **20** | **80** | **04** |
| **Ethics and Values** |  | **25** | **01** |
| **TOTAL** | **75** | **350** | **23** |
| **SEMESTER-2** |
| **C-III Real Analysis and Tutorial** | **20** | **80** | **06 (5+1)** |
| **C-IV: Differential Equations and Practical** | **15** | **60+25** | **06(4+2)**  |
| **GE-II: Generic Elective-II and Tutorial** | **20** | **80** | **06 (5+1)** |
| **AECC-II** | **20** | **80** | **04** |
| **Ethics and Values** |  | **25** | **01** |
| **TOTAL** | **75** | **350** | **23** |
| **SEMESTER-3** |
| **C-V: Theory of Real Functions and Tutorial** | **20** | **80** | **06 (5+1)** |
| **C-IV: GroupTheory-1 and Tutorial** | **20** | **80** | **06 (5+1)** |
| **C-VII: Partial Differential Equations and practical** | **15** | **60+25** | **06 (4+2)** |
| **GE-III: Generic Elective and Tutorial** | **20** | **80** | **06 (5+ 1)** |
| **SECC-I** | **20** | **80** | **04** |
| **Ethics and Values** |  | **25** | **01** |
| **TOTAL** | **95** | **430** | **29** |
| **SEMESTER-4** |
| **C-VIII: Numerical methods and scientific computing with practical** | **15** | **60+25** | **06 (4+2)** |
| **C-IX: Topology of metric spaces and Tutorial** | **20** | **80** | **06 (5+1)** |
| **C-X: Ring Theory and Tutorial** | **20** | **80** | **06 (5+1)** |
| **GE-IV: Generic Elective and Tutorial** | **20** | **80** | **06(5+1)** |
| **SECC-II and Tutorial** | **20** | **80** | **04**  |
| **Ethics and Values** |  | **25** | **01** |
| **TOTAL** | **95** | **430** | **29** |
| **SEMESTER-5** |
| **C-XI: Multivariable calculus and Tutorial** | **20** | **80** | **06 (5+1)** |
| **C-XII: Linear algebra and tutorial** | **20** | **80** | **06 (5+1)** |
| **DSE-I: Linear programming and Tutorial** | **20** | **80** | **06 (5+1)** |
| **DSE-II: Probability and Statistics and Tutorial** | **20** | **80** | **06 (5+1)** |
| **Ethics and Values** |  | **25** | **01** |
| **TOTAL** | **80** | **345** | **25** |
| **SEMESTER-6** |
| **C-XII: Complex analysis and Tutorial** | **20** | **80** | **06 (5+1)** |
| **C-XIV: Group Theory-II and Tutorial** | **20** | **80** | **06 (5+1)** |
| **DSE-III: Differential Geometry and Tutorial** | **20** | **80** | **06 (5+1)** |
| **DSE-IV: Number Theory and Project**  | **20** | **80** | **06 (5+1)** |
| **Ethics and Values** |  | **25** | **01** |
| **TOTAL** | **80** | **345** | **25** |

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| **PG** |
| **NAME OF THE PAPAER** | **MARKS** | **CREDIT POINTS** |
|  | **INTERNAL** | **SEMESTER** |  |
| **SEMESTER-1** |
| **MTC 101:Real Analysis**  | **30** | **70** | **06** |
| **MTC 102: Complex Analysis**  | **30** | **70** | **06** |
| **MTC 103: Topology**  | **30** | **70** | **06** |
| **MTC 104: Abstract Algebra** | **30** | **70** | **06** |
| **MTC 105: Data Processing and Numerical Computing Lab** | **30** | **70** | **06** |
| **TOTAL** | **150** | **350** | **30** |
| **SEMESTER-2** |
| **MTC 201: Functional Analysis** | **30** | **70** | **06** |
| **MTC 202: Differential Equation** | **30** | **70** | **06** |
| **MTC 203: Linear Algebra** | **30** | **70** | **06** |
| **MTC 204: Numerical Optimization** | **30** | **70** | **06** |
| **MTC 205: Data base and C++ lab** | **30** | **70** | **06** |
| **TOTAL** | **150** | **350** | **30** |
| **SEMESTER-3** |
| **MTC301:Numerical Analysis -1 (core elective)** | **30** | **70** | **06** |
| **MTC 302: Number Theory and Cryptography-1 (core elective)** | **30** | **70** | **06** |
| **MTC 303: Statistical Methods (Allied elective)** | **30** | **70** | **06** |
| **MTC 304: Discrete Mathematics (Free elective)** | **30** | **70** | **06** |
| **MTC 305: Theory of Computation-1 (Allied elective)** |  | **100** | **06** |
| **TOTAL** | **120** | **380** | **30** |
| **SEMESTER-4** |
| **MTC 401: Numerical Analysis -II (core elective)** | **30** | **70** | **04** |
| **MTC 402: Number Theory and Cryptography-II (core elective)** | **30** | **70** | **06** |
| **MTC 403: Theory of Computation-II (Allied elective)** | **30** | **70** | **06** |
| **MTC 404: Project** | **30** | **70** | **06** |
| **MTC 405: Comprehensive Viva Voce** |  | **100** | **06** |
| **TOTAL** | **120** | **380** | **30** |

**TEACHERS OF THE DEPARTMENT**

**Sanctioned Strength: 05**

**Present Strength: 04**

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| **Sl. No.** | **Name of the teacher** | **Qualification** | **Designation** | **No. of years of experience in teaching** |
| **01** | **Sri Pramoda Kumar Mahapatra** | **M.SC** | **Asst. Prof.(II)** | **23 yrs** |
| **02** | **Dr. Laxmi Behera** | **Ph.D.** | **Asst. Prof.(I)** | **10 yrs** |
| **03** | **Dr. Priyadarsini Rath** | **Ph.D.** | **Asst. Prof.(I)** | **8 Months/ 29.08.2023** |
| **04** | **Sri Prabhukalyan Behera** | **M.SC** | **Asst. Prof.(I)** | **7 yrs** |

**FACULTY PROFILE:**



1. **NAME: SRI PRAMODA KUMAR MAHAPATRA**

|  |  |
| --- | --- |
| **Designation:** | ASSISTANT PROFESSION (STAGE-II) |
| **Qualification:** | M.SC |
| **Whatsapp No.** | 9438406616 |
| **NET/SLET Qualified** |  |
| **Ph.D(Awarded in the Year/ Name of the University/Title)** |  |
| **Date of Entry into OES** | 19.02.2001 |
| **ORCID ID** |  |
| **h-index** |  |
| **E-mail** | Pmahapatra067@gmail.com |
| **No. of Years in N.C. Autonomous College/ Date of Joining** | 21.11.201311 Years |

1. **Refresher Course/Orientation Programme/ Induction Programme/ FDP/ Short Course**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.No.** | **Year** | **From-To** | **Type** | **Organizing Institute** | **Topic/Title** |
| **01** | **2009** | **07.03.2009-06.03.2009** | **Orientation** | **ASC, Utkal University** |  |
| **02** | **2010** | **04.02.2010-****24.02.2010** | **Refresher** | **ASC, Sambalpur University** | **Mathematics and Statistics** |
| **03** | **2011** | **03.03.2011-23.03.2011** | **Refresher** | **ASC, Utkal University** | **Recent Trends in Analysis and Computing** |
| **04** | **2015** | **27.01.2015-16.02.2015** | **Refresher** | **ASC, Utkal University** | **Computer Science** |
| **05** | **2024** | **22.01.2024-06.02.2024** | **Refresher** | **Ramanujan College, Delhi** | **Advanced Research Methodology** |

1. **Research Projects completed/under implementation:NIL**

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| --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Research Project Applied: NIL**

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| --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Professional Recognition/Award/Fellowship: NIL**

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| --- | --- | --- | --- |
| **Sl.No** | **Name of Award** | **Awarding Agency** | **Year** |
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1. **Research Publications in SCI/Scopus indexed Journals: NIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Authors** | **Title** | **Journal Name** | **Volume** | **Page** | **Year** |
|  |  |  |  |  |  |  |

1. **Publications in Conference proceedings/Books/ Book Chapter: NIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl No.** | **Title of the article** | **Proceeding/Book Name** | **Publisher** | **ISBN** | **Page** | **Year** |
|  |  |  |  |  |  |  |

1. **Conference/Seminar/Workshop paper presented/Resource person/participated:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.No** | **Name of the Event** | **Organizing Institute** | **Duration** | **Title of the Paper presented/participated** |
| **01** |  |  |  |  |
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| **04** |  |  |  |  |
| **05** |  |  |  |  |
| **06** |  |  |  |  |

1. **Reviewer for the Journals (SCI/Scopus Indexed): NIL**

|  |  |
| --- | --- |
| **Sl. No.** | **Name of the Journal** |
|  |  |

1. **NAME: DR LAXMI BEHERA**

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| --- | --- |
| **Designation:** | ASSISTANT PROFESSION (STAGE-I) |
| **Qualification:** | Ph.D. |
| **Whatsapp No.** | 9861681471 |
| **NET/SLET Qualified** | NA |
| **Ph.D(Awarded in the Year/ Name of the University/Title)** | 2016, NIT Rourkela, Numerical Solution of Static and Dynamic Problemsof Nanobeams and Nanoplates |
| **Date of Entry into OES** | 01.12.2018 |
| **ORCID ID** |  |
| **h-index** |  |
| **E-mail** | laxmibehera25@gmail.com |
| **No. of Years in N.C. Autonomous College/ Date of Joining** | 10 months/ 18.07.2023 |

1. **Refresher Course/Orientation Programme/ Induction Programme/ FDP/ Short Course**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.No.** | **Year** | **From-To** | **Type** | **Organizing Institute** | **Topic/Title** |
| 1 | 2022 | 21.02.2022-05.03.2022 | Refresher course | Ramanujan College | Research methodology and Data Analysis |
| 2 | 2022 | 27.10.2022-05.11.2022 | Professional Development Programme | Indira Gandhi National Open University | Implementation of NEP-2020 for University and college Teachers |
| 3 | 2023 | 11.11.2023-25.11.2023 | Refresher course | Ramanujan College | Managing Online Classes and Co-creating MOOCS |

1. **Research Projects completed/under implementation:NIL**

|  |  |  |  |  |  |
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| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Research Project Applied: NIL**

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| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Professional Recognition/Award/Fellowship: NIL**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Name of Award** | **Awarding Agency** | **Year** |
|  |  |  |  |

1. **Research Publications in SCI/Scopus indexed Journals: NIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Authors** | **Title** | **Journal Name** | **Volume** | **Page** | **Year** |
|  |  |  |  |  |  |  |

1. **Publications in Conference proceedings/Books/ Book Chapter: NIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl No.** | **Title of the article** | **Proceeding/Book Name** | **Publisher** | **ISBN** | **Page** | **Year** |
| 1 | Vibration and Buckling analyses of Reddynanobeams embedded in elastic medium | Book Chapter | AIP | Chapter-9 | 2021 |  |

1. **Conference/Seminar/Workshop paper presented/Resource person/participated:**

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| **Sl.No** | **Name of the Event** | **Organizing Institute** | **Duration** | **Title of the Paper presented/participated** |
| **01** |  |  |  |  |
| **02** |  |  |  |  |
| **03** |  |  |  |  |

1. **Reviewer for the Journals (SCI/Scopus Indexed): NIL**

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| **Sl. No.** | **Name of the Journal** |
|  |  |

1. **NAME: DR PRIYADARSINI RATH**

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|  |  |
| --- | --- |
| **Designation:** | ASSISTANT PROFESSION (STAGE-I) |
| **Qualification:** | Ph.D. |
| **Whatsapp No.** | 8763334635 |
| **NET/SLET Qualified** |  |
| **Ph.D(Awarded in the Year/ Name of the University/Title)** | Ravenshaw University, Cuttack, Odisha2018Solution of Some Multi-Objective Linear and Non-Linear Programming Problems using Fuzzy Optimization Technique |
| **Date of Entry into OES** | 29.08.2023 |
| **ORCID ID** | 0000-0002-4286-9498 |
| **h-index** | 3 |
| **E-mail** | priyadarsinirath0@gmail |
| **No. of Years in N.C. Autonomous College/ Date of Joining** | 29.08.20238 Months |

1. **Refresher Course/Orientation Programme/ Induction Programme/ FDP/ Short Course**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.No.** | **Year** | **From-To** | **Type** | **Organizing Institute** | **Topic/Title** |
| 01 | 2024 | Jan 23 - Feb 06 | Refresher Course | Ramanujan College, University of, Delhi | ADVANCED RESEARCH METHODOLOGY |
|  |  |  |  |  |  |
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1. **Research Projects completed/under implementation:NIL**

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| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Research Project Applied: NIL**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
|  |  |  |  |  |  |

1. **Professional Recognition/Award/Fellowship: NIL**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Name of Award** | **Awarding Agency** | **Year** |
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1. **Research Publications in SCI/Scopus indexed Journals: NIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Authors** | **Title** | **Journal Name** | **Volume** | **Page** | **Year** |
|  |  |  |  |  |  |  |

1. **Publications in Conference proceedings/Books/ Book Chapter: NIL**

|  |  |  |  |  |  |  |
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| **Sl No.** | **Title of the article** | **Proceeding/Book Name** | **Publisher** | **ISBN** | **Page** | **Year** |
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1. **Conference/Seminar/Workshop paper presented/Resource person/participated:**

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| **Sl.No** | **Name of the Event** | **Organizing Institute** | **Duration** | **Title of the Paper presented/participated** |
| **01** |  |  |  |  |
| **02** |  |  |  |  |
| **03** |  |  |  |  |

1. **Reviewer for the Journals (SCI/Scopus Indexed): NIL**

|  |  |
| --- | --- |
| **Sl. No.** | **Name of the Journal** |
|  |  |

1. **NAME: SRI PRABHUKALYAN BEHERA**

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|  |  |
| --- | --- |
| **Designation:** | JUNIOR LECTURER |
| **Qualification:** | M.SC. |
| **Whatsapp No.** | 7978637998 |
| **NET/SLET Qualified** | NET |
| **Ph.D(Awarded in the Year/ Name of the University/Title)** |  |
| **Date of Entry in to OES** | 24.10.2016 |
| **ORCID ID** |  |
| **h-index** |  |
| **E-mail** | Prabhu6.iitm@gmail.com |
| **No. of Years in N.C. Autonomous College/ Date of Joining** | 7 Years24.10.2016 |

1. **Refresher Course/Orientation Programme/ Induction Programme/ FDP/ Short Course**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.No.** | **Year** | **From-To** | **Type** | **Organizing Institute** | **Topic/Title** |
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1. **Research Projects completed/under implementation:NIL**

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| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Research Project Applied: NIL**

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| **Sl.No** | **Title** | **Cost in Lakhs** | **Duration/Status** | **Role** | **Agency** |
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1. **Professional Recognition/Award/Fellowship: NIL**

|  |  |  |  |
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| **Sl.No** | **Name of Award** | **Awarding Agency** | **Year** |
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1. **Research Publications in SCI/Scopus indexed Journals: NIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Authors** | **Title** | **Journal Name** | **Volume** | **Page** | **Year** |
|  |  |  |  |  |  |  |

1. **Publications in Conference proceedings/Books/ Book Chapter: NIL**

|  |  |  |  |  |  |  |
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| **Sl No.** | **Title of the article** | **Proceeding/Book Name** | **Publisher** | **ISBN** | **Page** | **Year** |
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1. **Conference/Seminar/Workshop paper presented/Resource person/participated:**

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| **Sl.No** | **Name of the Event** | **Organizing Institute** | **Duration** | **Title of the Paper presented/participated** |
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1. **Reviewer for the Journals (SCI/Scopus Indexed): NIL**

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| --- | --- |
| **Sl. No.** | **Name of the Journal** |
|  |  |

**INFRASTRUCTURAL FACILITIES OF DEPARTMENT**

|  |  |  |  |
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| **Sl.No** | **No of Rooms** | **No. of Labs** | **No. of Staff Room** |
|  |  |  |  |

**DETAILS ABOUT LIBRARY/ BOOK BANK OF DEPARTMENT**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the Book | Authors | Publishers | Year of Purchase | Cost of the Book | Remarks (if any) |
|  |  |  |  |  |  |

**ACHIEVERS:**

**ACADEMIC PERFORMANCE OF DEPARTMENT (2018-2022)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Academic Year | Total Strength | % of Pass | Highest % | Name of the | Total First Class with Distinction | Remarks (If any) | Any Achievement in College Level |
| 2017 |  |  |  |  |  |  |  |
| 2018 |  |  |  |  |  |  |  |
| 2019 |  |  |  |  |  |  |  |
| 2020 |  |  |  |  |  |  |  |
| 2021 |  |  |  |  |  |  |  |
| 2022 |  |  |  |  |  |  |  |

**SPECIAL ACHIEVEMENTS OF DEPARTMENT (2018-2022)**

|  |  |  |  |
| --- | --- | --- | --- |
| Sl.No | Special Event | Year | Remark (if any)  |
| 01 |  |  |  |
| 02 |  |  |  |
| 03 |  |  |  |
| 04 |  |  |  |
| 05 |  |  |  |

**ACHIEVEMENTS OF STAFF**

|  |  |  |  |
| --- | --- | --- | --- |
| Sl No. | Name of Achiever | Achievement | Year |
| 01 |  |  |  |
| 01 |  |  |  |

**ACHEIVEMENT OF STUDENTS**

|  |  |  |  |
| --- | --- | --- | --- |
| Sl No. | Name of Achiever | Achievement | Year |
| 01 |  |  |  |
| 01 |  |  |  |

**CURRICULAR/ ACADEMIC ACTIVITIES OF THE DEPARTMENT (2018-2022)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Mode of Class | No. of Classes per Week | For the Month | Record of Class in Progress Register | Specific Remarks if any |
| 2018 |  |  |  |  |  |
| 2019 |  |  |  |  |  |
| 2020 |  |  |  |  |  |
| 2021 |  |  |  |  |  |
| 2022 |  |  |  |  |  |
|  |  |  |  |  |  |

**CO-CURRICULAR ACTIVITIES OF THE DEPARTMENT (2018-2022)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No | Specific Item | Date | Mode of Organization and its Venue | Participants | Specific Remarks if any |
| 01 |  |  |  |  |  |
| 02 |  |  |  |  |  |
| 03 |  |  |  |  |  |
| 04 |  |  |  |  |  |
| 05 |  |  |  |  |  |
|  |  |  |  |  |  |

**PROMINENT ALUMNI- OUR ACHIEVERS**

|  |  |  |  |
| --- | --- | --- | --- |
| Sl No | Name | Year of Pass Out | Achievement |
| 01 |  |  |  |
| 02 |  |  |  |
| 03 |  |  |  |
| 04 |  |  |  |
| 05 |  |  |  |
| 06 |  |  |  |
| 07 |  |  |  |

**STUDENTS’ PROGRESSION:**

|  |  |  |
| --- | --- | --- |
| Sl No.  | Name | Year of Pass Out |
| 01 |  |  |
| 02 |  |  |
| 03 |  |  |
| 04 |  |  |
| 05 |  |  |

**STUDENTS’ PLACEMENT:**

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Name of the Student | Service got | Year |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**STUDENT GOT NET/SLET/GATE/ JRF ETC.:**

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Name of the Student | NET/SLET/GATE/JRF | Year |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**STRENGTH, WEKNESS, OPPORTUNITIES AND CHALLENGES (SWOC) OF THE DEPARTMENT:**

1. **Leveraging Strengths for Innovation**: Build upon the department's strengths highly experienced faculty, rigorous curriculum, and dedicated student body to foster a culture of innovation. Encourage faculty-student collaboration on research projects and initiatives that push the boundaries of mathematical knowledge. Utilize existing resources and expertise to explore emerging areas of mathematics and interdisciplinary applications.
2. **Addressing Weaknesses through Professional Development:** Recognize areas of weakness such as limited access to technological resources or outdated teaching methods, and invest in faculty development programs. Provide training workshops, seminars, and resources to enhance pedagogical skills, integrate technology into teaching practices, and stay updated with the latest advancements in mathematical education. Empower faculty members to collaborate and share best practices to improve overall teaching effectiveness.
3. **Seizing Opportunities for Collaboration:** Identify opportunities for collaboration with other departments, industries, and research institutions to expand the reach and impact of the mathematics department. Explore joint degree programs, interdisciplinary research projects, and industry partnerships that leverage mathematics expertise to address real-world challenges. Foster a culture of cross-disciplinary collaboration and knowledge exchange to enrich the academic experience for students and faculty alike.
4. **Navigating Challenges with Strategic Planning:** Anticipate challenges such as budget constraints, enrollment fluctuations, or changing educational policies, and develop strategic plans to address them proactively. Seek input from stakeholders including faculty, students, alumni, and industry partners to identify potential challenges and formulate effective strategies for mitigation. Implement measures to improve retention rates, enhance student support services, and adapt curriculum to meet evolving educational needs and standards.
5. **Maximizing Opportunities in Online Education:** Recognize the growing demand for online education and leverage technology to expand access to mathematics courses and programs. Develop high-quality online courses that cater to diverse learning styles and preferences, ensuring accessibility and flexibility for students. Invest in faculty training and support to facilitate the transition to online teaching and learning environments, while maintaining the same level of academic rigor and engagement as traditional classroom settings. Explore innovative pedagogical approaches and digital tools to enhance the online learning experience and promote student success.

**FUTURE PLAN OF DEPARTMENT:**

1. **Implementation of Smart Classrooms**: Propose the establishment of Smart Classrooms equipped with advanced technology and interactive learning tools to enhance the teaching and learning experience for students. These state-of-the-art facilities will facilitate dynamic and engaging instruction, fostering active participation and collaboration among students and faculty.
2. **Introduction of Data Science and Analytics Boot Camp**: Develop a comprehensive Data Science and Analytics Boot Camp program aimed at equipping students with in-demand skills and knowledge in data analysis, machine learning, and statistical modeling. Offer self-paced modules and workshops to cater to students' diverse learning preferences and schedules, empowering them to explore and master key concepts at their own pace.
3. **Launch of Data Engineer Boot Camp**: Introduce a specialized Data Engineer Boot Camp designed to provide hands-on training and practical experience in data engineering principles, tools, and techniques. Offer short-term courses and workshops focused on data infrastructure, data pipeline development, and cloud computing technologies to prepare students for careers in data engineering roles.
4. **Expansion of Short-Term Courses:** Expand the department's portfolio of short-term courses to cover a wide range of topics and areas of interest, including mathematical modeling, optimization, cryptography, and computational mathematics. These courses will provide students with valuable skills and expertise that complement their academic studies and enhance their employability in diverse fields.
5. **Promotion of Research Fellowships and Projects**: Launch research fellowship programs and projects to engage students in cutting-edge research initiatives and collaborative investigations. Provide opportunities for students to work closely with faculty mentors on research projects, publish scholarly articles, and present their findings at conferences and symposiums, fostering a culture of innovation and intellectual inquiry.
6. **Support for NET/GATE Preparation**: Offer dedicated support and resources to help students prepare for national-level competitive exams such as NET (National Eligibility Test) and GATE (Graduate Aptitude Test in Engineering). Provide specialized coaching, study materials, and mock tests to assist students in achieving their academic and career goals.
7. **Proposal for Latex and Other Software**: Advocate for the implementation of LaTeX and other mathematical software tools to enhance students' technical writing skills and facilitate the creation of professional-quality documents, reports, and research papers. Provide training sessions and workshops to familiarize students with LaTeX and other software applications commonly used in mathematical research and academia.

By implementing these initiatives, our Mathematics Department will continue to uphold its commitment to excellence in teaching, research, and service, while preparing students for success in the rapidly evolving fields of mathematics, data science, and analytics.