# National Institute of Technology, Tiruchirappalli:
# Performa for CV of Faculty/ Staff Members

**Curriculum Vitae**

Brief Profile:

I am Jerome Moses, working in the broad area of systems and control. My research interests include control systems, robotics, cooperative control, and reinforcement learning. I received my Ph.D. jointly from Indian Institute of Technology Bombay and Monash University Melbourne, where I was associated with the Systems and Control group at IIT Bombay and the Department of Mechanical Engineering at Monash University. My doctoral research focused on formation control, with an emphasis on both theoretical development and experimental validation on mobile robotic platforms.

My current research continues to explore the interface between theory and practice, with a focus on bridging foundational control methods and emerging learning-based approaches. I have been involved in projects related to multi-robot systems and networked control. Prior to joining my alma mater, I was engaged in teaching at National Institute of Technology Calicut and Azim Premji University, Bengaluru and served as a postdoctoral researcher at the Robert Bosch Centre for Cyber-Physical Systems, IISc.

1. Name: Jerome Moses M
2. Designation: Assistant Professor
3. Office Address: Room No. 204C, Department of Instrumentation and Control, National Institute of Technology Tiruchirappalli - 620015
   Tamil Nadu, INDIA
4. Telephone (Direct) (Optional):

   Telephone : Extn (Optional):

   Mobile (Optional):
5. Email (Primary): jeromem@nitt.edu Email (Secondary) :
6. Field(s) of Specialization: Control Theory, Multi-agent systems, Cooperative Control, Robotics
7. Employment Profile

| Job Title | Employer | From | To |
|---|---|---|---|
| Assistant Professor | Azim Premji University | Apr. 2025 | Feb. 2026 |
| Postdoctoral Researcher | Indian Institute of Science | Apr. 2024 | Apr. 2025 |
| Assistant Professor (On contract) | National Institute of | Aug. 2022 | Apr. 2024 |

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| | Technology Calicut | | |
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8. Academic Qualifications (From Highest Degree to High School):

| Examination | Board / University | Division/ Grade | Subjects |
|---|---|---|---|
| PhD | IIT Bombay – Monash University Melbourne | | Systems and Control |
| Master's | National Institute of Technology Tiruchirappalli | I | Instrumentation and Control |
| Bachelor's | Anna University Chennai | I with Distinction | Instrumentation and Control |

9. Academic/Administrative Responsibilities within the University

| Position | Faculty/Department/Centre/Institution | From | To |
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10. Academic/Administrative Responsibilities outside the University

| Position | Institution | From | To |
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11. Awards, Associateships etc.

| Year of Award | Name of the Award | Awarding Organization |
|---|---|---|
| 2017 | Young Author Support | IFAC Foundation |
| 2017 | APJ Abdul Kalam Memorial International Travel Award | ACDOS |
| 2010 | UGC Summer Internship | CSA, IISc |

12. Fellowships

| Year of Award | Name of the Fellowship | Awarding Organization | From (Month/Year) | To (Month/Year) |
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13. Details of Academic Work
    (i) Curriculum Development
    (ii) Courses taught at Postgraduate and Undergraduate levels
        Measurement Data Analysis, Control Systems, Process Control [UG]
    (iii)Projects guided at Postgraduate level
    (iv)Other contribution(s)

14. Details of Major R&D Projects

| Title of Project | Funding Agency | Duration | | Status |
|---|---|---|---|---|
| | | From | To | Ongoing/ Completed |
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15. Number of PhDs guided

| Name of the PhD Scholar | Title of PhD Thesis | Role(Supervisor/ Co-Supervisor) | Year of Award |
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16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role) (Last 2 Years)

| Date (s) | Title of Activity | Level of Event (International/ National/ Local) | Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other) | Event Organized by | Venue |
|---|---|---|---|---|---|
| 15-18 Jan. 2026 | Reinforcement Learning Workshop | International | Participant | Indian Institute of Science | Bengaluru |
| 22 - | Reinforcement | International | Participant | Indian Institute of | Bengaluru |

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| 25 Jan. 2025 | Learning Workshop | | | Science | |
| 25-27 July 2024 | Cyber-Physical Systems Symposium | International | Participant | Indian Institute of Science | Bengaluru |

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

| Title of Activity | Level of Event (International/ National/ Local) | Date (s) | Role | Venue |
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18. Invited Talks delivered

| Topic | Date | Inviting Organization |
|---|---|---|
| Building Cooperative control laws for multi-agent systems | 13- Dec. -2024 | Vidya Academy of Science & Technology |
| Trochoid: From Spirograph to multi-agent formation | 20- May- 2022 | Monash Robotics, Melbourne |
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19. Membership of Learned Societies

| Type of Membership (Ordinary Member/ Honorary Member / Life Member ) | Organization | Membership No. with date |
|---|---|---|
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20. Academic Foreign Visits

| Country | Duration of Visit | Programme |
|---|---|---|
| Spain | Oct. 2025 | Conference |
| Australia | Dec. 2019 | Conference |
| France | July 2017 | Conference |
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21. Publications

(A) Refereed Research Journals:

| Author(s) | Title of Paper | Journal | Volume (No.) | Page numbers | Year | Impact Factor of the Journal (Optional) |
|---|---|---|---|---|---|---|
| Jerome Moses M., Sinha A, and Chung H. | Trochoidal Patterns Generation Using Generalized Consensus Strategy for Double-Integrator Dynamic agents | European Journal of Control | 76 | 100928 | 2024 | |
| Ganesh Moorthy J, Jerome Moses M, Kalaiselvan N. | Active power regulation in low voltage grid-tied inverters for rooftop solar PV systems: Progress and future directions | Energy Sources, Part A: Recovery, Utilization, and Environmental Effects | 46 | 12358-12381 | 2024 | |
| Jerome Moses M, and Sinha, A. | Trochoidal Patterns Generation Using Generalized Consensus | European Journal of Control | 47 | 84-92 | 2019 | |

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|---|---|---|---|---|---|---|
| | Strategy for Single-Integrator Kinematic agents, | | | | | |

(B) Conferences/Workshops/Symposia Proceedings

| Author(s) | Title of Abstract/ Paper | Title of the Proceedings | Page numbers | Conference Theme | Venue | Year |
|---|---|---|---|---|---|---|
| Jerome Moses M, Kumari K. | Robust Finite-time Gain Convergence for Formation Maintenance under a Generalized Consensus Law | Annual Conference of the IEEE Industrial Electronics Society | 1-6 | | Madrid, Spain | 2025 |
| Jerome Moses M, Sinha A, and Chung H. | Orbital Pattern Generation for Double-integrator Agents using Consensus Strategy | Australasian Conference on Robotics and Automation | 1-6 | | Adelaide, Australia | 2019 |
| Jerome Moses M, Sinha A, and Chung H. | Geometric Pattern Formation with Coordinated Double-Integrator Agents | IFAC Symposium on Robot Control | 172-177 | | Budapest, Hungary | 2018 |
| Jerome Moses M, Sinha A, and Boland D. | Geometric Pattern Formation on a Plane Under a General Graph Topology | IFAC World Congress | 2391-2396 | | Toulouse, France | 2017 |
| Jerome Moses M, and Ramakalyan, A. | A Brief Survey of Stochastic Resonance and Its Application to Control | Advances in Control and Optimization of Dynamical Systems | 313-320 | | Kanpur, India | 2014 |
| Jerome | Benefits of | International | 1-4 | | Thrissur, | 2014 |

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|---|---|---|---|---|---|---|
| Moses M, and Ramakalyan, A. | Noise in Systems and Control | Conference on Power, Control, Signals & Computation | | | India | |
| Jerome Moses M, and Ramakalyan, A. | A Computationally Faster Randomized Algorithm for NP-Hard Controller Design Problem | International Symposium on Intelligent Informatics | 411-417 | | Mysore, India | 2013 |

(C) Books & Monographs

| Author(s) | Title of Book/Monograph | Name of Publishers | Year of Publication | ISSN/ISBN Number |
|---|---|---|---|---|
| Jerome Moses M, Chung H, and Sinha A. | Spirograph, Multi-agent Formation and Beyond [Book Chapter] | Springer | 2025 | 978-3-031-82789-1 |
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