

# **NAVIGATING THE FUTURE : UNVEILING THE DYNAMICS OF INDUSTRY 5.0**

## **Editors**

**Dr.A.Mayil Murugan | Dr.S.Selvakumar | Dr.K.Hema Malini  
Dr.Y.Natarajan | Dr.S.Chandrasekar | Dr.R.Vennila  
Dr.A.Karuppusamy | Dr.S.Ramachandran | Dr.S.Krithika  
Mrs.P.Jayalakshmi | Mrs G Sreedevi**

**PG & RESEARCH DEPARTMENT OF COMMERCE,  
THE MADURA COLLEGE,  
MADURAI**



**Title:** NAVIGATING THE FUTURE : UNVEILING  
THE DYNAMICS OF INDUSTRY 5.0

**Editor's Name:** Dr.A.Mayil Murugan  
Dr.S.Selvakumar  
Dr.K.Hema Malini  
Dr.Y.Natarajan  
Dr.S.Chandrasekar  
Dr.R.Vennila  
Dr.A.Karuppusamy  
Dr.S.Ramachandran  
Dr.S.Krithika  
Mrs.P.Jayalakshmi  
Mrs G Sreedevi

**Published by:** Shanlax Publications, Vasantha Nagar,  
Madurai - 625003, Tamil Nadu, India

**Publisher's Address:** 61, 66 T.P.K. Main Road, Vasantha Nagar,  
Madurai - 625003, Tamil Nadu, India

**Printer's Details:** Shanlax Press, 66 T.P.K. Main Road,  
Vasantha Nagar, Madurai - 625003,  
Tamil Nadu, India

**Edition Details (I,II,III):** I

**ISBN:** 978-93-6163-608-0

**Month & Year:** March, 2024

**Copyright @** Copyrights are Reserved

**Pages:** 304

**Price:** ₹500/-

## PREFACE

In an era marked by technological revolutions, the concept of Industry 5.0 stands at the forefront, promising a paradigm shift in the way industries operate. As we navigate the ever-evolving landscape unravel the intricacies and possibilities that Industry 5.0 holds. “Navigating the Future” invites all attendees to be active contributors to the ongoing dialogue that shapes the future on industries, fostering a community of forward – thinkers and innovators who are well – equipped to drive positive change in the world of Industry 5.0

Industry 5.0 is regarded as a fifth industrial revolution in which consumers could satisfy their individual requirements as per the tastes and expectations. Although the repetitive tasks are done by robots in Industry 4.0 which is at the mass customization level, Industry 5.0 aims to perform mass personalization with help of Artificial Intelligence.

Industry 5.0 is expected to revolutionize the production process with higher autonomy to collaborative robots. Industry 5.0 is the futuristic industrial revolution which is expected to bring in more creativity and innovation in the products by allowing robots to perform repetitive tasks. It is expected to utilize the creative intellectual capability of human optimally. Moving from mass production to custom manufacturing techniques and production system digitization and intelligentization.

In the lines if above, the PG & Research Department of Commerce has organized two days Conference on the theme “Navigating the Future: Unveiling the Dynamics of Industry 5.0” with the following objectives, to understand and gain knowledge on the functional areas of Industry 5.0; to provide a holistic understanding of the multifaceted dynamics of Industry 5.0 and to enhance the research aptitude among the academicians, scholars towards dynamic changing environment.

To get more insights on the above theme, research articles were invited for presentation and publication. The Department has received fifty (50) articles on various sub-themes from Professors and research scholars of various colleges in Tamil Nadu, Kerala and Karnataka. The Editorial Board has reviewed and edited all the papers scrupulously and meticulously with plagiarism check.

The Editorial Board has recommended and forwarded all the articles in the form of Edited Book with ISBN Publication Number for disseminating the knowledge to all the stakeholders of Higher Education Institutions and Industry concerned.

This book is a comprehensive guide for understanding and utilizing on various themes to generate indepth knowledge on it and suitable for research scholars as well as corporates. We hope that you will find this book informative and inquisitive as much as we learnt it.

Editorial Board.

## CONTENTS

S.No	Title	Page No.
1	UNLOCKING INNOVATION IN MSMES THROUGH TECHNOLOGY ADOPTION <b>S. Natanagopal &amp; Dr.A. Mayil Murugan</b>	1
2	FARMER PRODUCERS ORGANISATION - A NEW ERA OF INCLUSIVE GROWTH <b>Ms.P. Gajalakshmi &amp; Dr. A. Mayilmurugan</b>	12
3	ROLE OF GREEN MARKETING IN SKILL DEVELOPMENT <b>V.Preethi &amp; Dr. M. Chandrasekaran</b>	21
4	APPLYING KAIZEN AND LEAN PRINCIPLES TO MARKETING: A CONCEPTUAL FRAMEWORK <b>Dr. S. Selvakumar &amp; A.Suguna</b>	31
5	A STUDY ON IMPLEMENTATION AND UPGRADATION OF STRATEGIC COST MANAGEMENT FOR INDUSTRY 5.0 <b>J. Kenmai Selvam</b>	37
6	IMPLICATION OF ARTIFICIAL INTELLIGENCE IN BANKING SECTOR <b>Dr. K. Hemamalini &amp; P.Sindhu</b>	42
7	ROBO-ADVISORY SERVICES IN MSMES <b>Roopa D &amp; Dr Chaya R</b>	48
8	DIGITAL MARKETING TRANSFORMATION IN THE DIGITAL PAYMENT INDUSTRY <b>Ms.M.Anitha &amp; Dr.S.Chandrasekar</b>	57
9	A STUDY ON EFFECT OF INDUSTRY 5.0 IN STUDENTS – CHALLENGES AND SOLUTIONS <b>Dr.D.Samundeeswari &amp; Yughandra</b>	63
10	A STUDY ON FOREIGN DIRECT INVESTMENT INFLOWS IN DEVELOPMENT OF ENTERPRISES AND SERVICES HUB (DESH) IN TAMILNADU WITH AN UNVEILING THE DYNAMICS OF INDUSTRY 5.0 <b>S.Lakshmi Bharathi &amp; Dr. R.Vennila</b>	68
11	INSURTECH IN INDUSTRY 5.0 <b>V.Nithya &amp; Dr.A.Karuppusamy</b>	81
12	HUMAN RESOURCES ANALYTICS <b>Mr. S.Jeevananthan &amp; Mr.M. Aravind</b>	84
13	UNVEILING THE IMPACT OF INDUSTRY 5.0 TECHNOLOGIES ON CONSUMER CHOICES IN THE ORGANIC FOOD SECTOR <b>J. ArunPriya &amp; Dr A. MayilMurugan</b>	92

14	ECO-EMPOWERMENT: SUSTAINABLE STRATEGIES FOR FMCG SUCCESS IN THE GREEN MARKET <b>A.T.LogaRubini &amp; Dr.K.Hema Malini</b>	96
15	A STUDY ON REVOLUTION OF INDUSTRY 5.0 AND DEVELOPMENT OF FINTECH IN INDIA <b>P. Banu Priya</b>	104
16	EXPLORING THE GIG ECONOMY IN INDIA: OPPORTUNITIES AND CHALLENGES <b>Mr.S.Praveenkumar &amp; Dr.S.Chandarsekar</b>	109
17	<b>TECHNOPRENEURSHIP IN INDUSTRY 5.0</b> <b>J.Gayathri &amp; Dr.A.MayilMurugan</b>	113
18	STRATEGIC COST MANAGEMENT TO NAVIGATE THE FUTURE: UNVEILING THE DYNAMICS OF INDUSTRY 5.0" <b>Bhargavi R &amp; Dr. Hema Malini</b>	116
19	GREEN MARKETING - A WAY TO SUSTAINABLE DEVELOPMENT <b>G.Mullainathan &amp; A.Shakhil Reginald</b>	125
20	INTRODUCTION OF ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE <b>M.Muthukumar &amp; S. Edward Gideon</b>	132
21	INDUSTRY 5.0 IMPLEMENTATION: OPPORTUNITIES AND CHALLENGES <b>Dr.K.Hema Malini &amp; S.Bavani</b>	140
22	SUSTAINABILITY IN MANUFACTURING; THE ROLE OF ARTIFICIAL INTELLIGENCE FOR ECO FRIENDLY PRACTICES IN INDUSTRY 5.0 <b>Reshma.K. V &amp; Dr. V. Selvam</b>	145
23	IMPACT OF FINANCIAL INCLUSION ON THE GROWTH OF INDIAN ECONOMY <b>P. Jayalakshmi &amp; Dr. M. Ganesan</b>	151
24	A STUDY ON UNRAVELING HUMAN CHALLENGES AND ITS SOLUTIONS IN THE WORKPLACE EVOLUTION OF INDUSTRY 5.0 <b>Rubiserlin J</b>	160
25	CYBER SECURITY CHALLENGES IN BANKING SECTOR <b>S.Suba &amp; Dr.A.Mayil Murugan</b>	166
26	EXPLORING THE IMPACT OF CRM STRATEGIES ON CUSTOMER LOYALTY WITH THE MEDIATING ROLE OF RELATIONSHIP QUALITY <b>R. Madhanagopal &amp; R. M. Sowmiya Devi</b>	172
27	A STUDY ON SUSTAINABLE INNOVATION FRAMEWORK OF LEAN SIX SIGMA IN INDUSTRY 5.0 <b>A.Sahaya Stella</b>	192
28	MANUFACTURING'S FUTURE REVOLUTION: EMBRACING INDUSTRY 5.0 <b>Dr.G.Sindhu</b>	200

29	A STUDY ON EXPLORING THE INTERSECTION OF SUSTAINABILITY AND INDUSTRY 5.0: TOWARDS HUMAN-CENTRIC AND ECO-FRIENDLY MANUFACTURING <b>Dr.S.Saranya</b>	206
30	RETAILERS PERCEPTION TOWARDS ONLINE RETAILING OF CHILDREN CLOTHES IN MADURAI DISTRICT <b>P.Antony Raj &amp; Dr.R.Mary Sophia Chitra</b>	212
31	ISSUES AND CHALLENGES OF INTERNET OF THINGS <b>Dr.D.Umamaheswari &amp; Dr. R.Dharani</b>	216
32	INTERNET OF THINGS CONCEPT AND APPLICATIONS: A REVIEW <b>Dr. A. Nalli</b>	218
33	STRENGTHS AND WEAKNESS OF FREELANCER SERVICES IN INDIA <b>Dr. K. Surendran</b>	221
34	A STUDY ON THE IMPACT OF ARTIFICIAL INTELLIGENCE IN EDUCATION AND TEACHING <b>Dr. B. Shanmugapriya &amp; Dr. S. Gurupriya</b>	227
35	NAVIGATING THE UNORGANIZED SECTOR THROUGH DIGITALIZATION IN INSURANCE INDUSTRY <b>B.Srividhya &amp; Dr.A.Mayilmurugan</b>	234
36	A STUDY ON THE TRENDS IMPLEMENTED IN THE DEVELOPMENT OF MARKETING IN THE DIGITAL ERA <b>Dr. S. Selvakumar &amp; Ms. K.S. Keerthiga</b>	240
37	A SYSTEMATIC ANALYSIS ON AWARENESS OF MICROFINANCE IN INDIA AND ITS IMPACT <b>R Vaishnavi &amp; Dr. Y. Natarajan</b>	246
38	AN INVESTIGATION INTO THE IMPACT OF E-COMMERCE ON FOSTERING SUSTAINABLE BUSINESS DEVELOPMENT <b>G. Sreedevi</b>	254
39	A STUDY ON CUSTOMER PREFERENCE TOWARDS INTERNET OF THINGS (IOT) IN BANKING SECTOR WITH SPECIAL REFERENCE TO MADURAI CITY <b>Ms. K. Anandha Jothi Jeyalakshmi</b>	262
40	INDUSTRY 5.0 APPLICATIONS FOR SUSTAINABILITY: A SYSTEMATIC REVIEW AND FUTURE RESEARCH DIRECTIONS <b>K.Naganandhini</b>	272
41	CYBER SECURITY AND INDUSTRY 5.0 <b>S. Geetha</b>	277

42	EXPLORING DIGITAL FINANCIAL LITERACY AMONG GEN - Y WOMEN WORK FORCE IN MADURAI CITY <b>N.Uma Devi &amp; Dr.S.Benita</b>	281
43	DIFFICULTIES AND OPPORTUNITIES OF ARTIFICIAL INTELLIGENCE IN EDUCATION SYSTEMS <b>Dr. S. Ramachandran</b>	293

## **TECHNOPRENEURSHIP IN INDUSTRY 5.0**

**J.Gayathri**

*Ph.d. Research Scholar (Part-time)*

*Department of Commerce*

*Madurai Kamaraj University, Madurai.*

**Dr.A.MayilMurugan**

*Head & Associate Professor*

*Reg .No (MKU21PFOC10250) PG & Research Department of Commerce*

*The Madura College (Autonomous), Madurai.*

### **Abstract:**

*All industries have recently undergone a digital paradigm shift that has led to blending in with it. It is evident that self-employment is becoming more common in the commercial world. Global initiatives are undertaken to encourage entrepreneurship, which is mostly propelled by rapid technological development. The production of value that appears to be achieved by departing from established company patterns and procedures is the broad definition of entrepreneurship. There is a strong correlation between entrepreneurship and technology, which has had a significant impact on the latter in recent times. The term "Industry 5.0" describes people who work with intelligent machines and robots. It entails incorporating state-of-the-art technology, such as big data and the internet of things (IoT), to enable robots to assist humans in working more quickly and effectively. It includes a greater.*

**Keywords:** *Entrepreneurship, Innovation, Digitalization, AI Technology*

### **Review of Literature**

Post liberalization, India has witnessed a rise in the number of innovative and entrepreneurial companies, notably in the technology sector. The improvement of India's economy's sustainable competitiveness depends on technology-focused developments. India is currently experiencing a boom in inclusive innovation through social entrepreneurs. However, because neither the banking system nor the microfinance industry are willing or able to finance them, these entrepreneurs suffer from a shortage of funding. To close this gap, nevertheless, innovative financial initiatives have recently emerged. The increasing alternative finance initiatives that are establishing an ecosystem of support for inclusive innovation and social entrepreneurship are discussed in this study. The study specifically addresses the usage of two instruments business incubation and venture capital in traditional innovation assistance (Sonne, 2012).

Entrepreneurship is a key goal of education and lifelong learning policy in the European community. For vocational graduates, the entrepreneurship educations in higher and vocational education promote entrepreneurial competences, enterprising conduct, and employability. Graduates with an entrepreneurship major are more likely to launch new enterprises and have stronger entrepreneurial goals than other graduates since entrepreneurship is now a subject that is frequently taught in universities and business schools. In vocational schools, a variety of factors have an impact on students'

entrepreneurial thinking and attitudes. A critical analysis of the entrepreneurship education literature revealed some underlying definitional, conceptual, and contextual problems with this field of study. A new study would provide a reasonable and pertinent standard to assess and guide the advancement of entrepreneurship (Harlanu& Nugroho,2015)

### **Understanding Technopreneurship:**

The term technopreneurship, a combination of the words "technology" and "entrepreneurship," describes people who use new developments in technology to develop innovative goods, services, or business models. These people are adept in using technology to fill in market gaps in creative ways in addition to being adept at spotting those gaps. Technopreneurs are closely entwined with the technology industry, using it as the main source of inspiration for their business endeavors, in contrast to conventional entrepreneurs. Innovative thinking is the foundation of technopreneurship. The ambition of technopreneurs is to use technology to upend established conventions and transform whole industries. They welcome change and see obstacles as chances to accomplish worthwhile goals. Because of this mentality, innovative goods and services have been created, revolutionizing industries like finance, healthcare, transportation, and communication.

### **The Significance of Technopreneurship**

The rising trend of technopreneurship has brought about several transformative changes in a macroeconomic level and within the entrepreneurial landscape itself.

1. **Job creation and Economic growth:** Technopreneurs have been essential in accelerating economic growth. Their business endeavors increase GDP by opening up new markets and producing jobs. They frequently boost demand and drive consumption as they offer a novel solution, which has a multiplier effect that is advantageous to the economy as a whole.

2. **Disruption of Traditional Industries:** Technopreneurs' innovations have pushed traditional industries to change. In order to stay competitive in the face of digital disruption, established players in industries like retail, hospitality, and transportation have had to completely rethink their business strategies. 3. **Global Connectivity:** Technopreneurs can now reach a wider customer base thanks to technological advancements that have facilitated global connectivity.

3. **Global Connectivity:** Technopreneurs can now reach a wider customer base thanks to technological advancements that have facilitated global connectivity. Due to this interconnection, geographical barriers have been removed and businesses can now operate on a global basis right from the start.

4. **User-Centric Solutions:** Technopreneurs give user-centric design top priority, customizing their goods and services to fit the demands of their intended market. This strategy has produced solutions that have a strong emotional connection with customers, encouraging adoption and loyalty.

## Technopreneurship and You

**You are not just a bystander in the technopreneurship space, rather you are a person navigating the digital age.** Here are some ways you can take advantage of this idea:

**1. Embrace Lifelong Learning:** Technopreneurship requires continuous learning and innovation, requiring continuous updates on trends and emerging technologies. Understanding market needs and gaps is crucial for success, and identifying industries that could benefit from technological solutions can help streamline processes and address problems effectively.

**2. Identify Market Gaps:** Understanding market needs and gaps is crucial for successful ventures. Identify industries that could benefit from technological solutions and consider how technology can address problems and streamline processes.

**3. Develop a Growth Mindset:** Being a technopreneur has its share of difficulties. While failures are unavoidable, they also present chances for improvement. Accept setbacks as teaching opportunities and utilize them to improve your concepts and methods.

**4. Cooperate and Network:** In the era of digital technology, cooperation is essential. Make connections with people from a variety of backgrounds, such as marketers, technologists, and subject matter experts. Collaborative endeavors frequently result in comprehensive resolutions that address multiple facets of an issue.

**5. Prioritize User Experience:** The success of any technological solution hinges on its user experience. Put yourself in the shoes of your potential users. How can you create an intuitive and seamless experience that adds value to their lives.

**6. Start Small, Scale Fast:** The beauty of technopreneurship is that it allows for agile experimentation. Start with a small-scale prototype or minimum viable product (MVP), gather feedback, iterate, and then scale your solution based on real-world insights.

**7. Consider Social Impact:** Technopreneurship isn't just about profit; it's about creating positive change. Consider how your venture can have a lasting social impact. Whether it's improving access to education, healthcare, or sustainability, integrating a sense of purpose can resonate with both customers and investors pose can appeal to investors as well as consumers.

## Conclusion:

Technopreneurship has implemented in a new era of entrepreneurship, where technology and innovation are not just tools but core components of success. In this developing country the digital landscape is in constant flux, technopreneurs have the unique ability to adapt, innovate, and create solutions that shape the future. In order to sustain this dynamic environment, remember that you have the power to adopt technology, to drive innovation, and make a lasting impact through the principles of technopreneurship. Either you're an aspiring entrepreneur or a seasoned business professional, embracing the spirit of technopreneurship can propel you towards a future defined by innovation, growth, and meaningful change.

## References:

1. [www.google.com](http://www.google.com)
2. [www.researchgate.net](http://www.researchgate.net)