

महालेखाकार (लेखापरीक्षा-1) का कार्यालय
केरल, तिरुवनंतपुरम - 695 001



OFFICE OF THE
ACCOUNTANT GENERAL (AUDIT-I)
KERALA, THIRUVANANTHAPURAM - 695 001

सं.ले.प/प्रशिक्षण/11-8/2024-25/
No.Au/Trg/11-8/2024-25/

दिनांक: 12 दिसंबर 2024
Date: 12 December 2024

परिपत्र संख्या/ C I R C U L A R N o. 65

हमारे विभाग के अंतर्गत ऑनलाइन प्रक्रियाओं की बढ़ती स्वीकार्यता को देखते हुए, सभी अधिकारियों और कर्मचारियों के लिए सूचना प्रौद्योगिकी क्षेत्र में अपने ज्ञान और कौशल को बढ़ाना अनिवार्य हो गया है। इसलिए, मुख्यालय कार्यालय ने निर्देश दिया है कि सभी कर्मचारियों और IAAS अधिकारियों सहित सभी अधिकारियों को स्वयं (आईआईटी मद्रास की एक पहल) या आईजीओटी कर्मयोगी प्लेटफॉर्म द्वारा पेश किए गए कम से कम एक ऑनलाइन मुफ्त पाठ्यक्रम में नामांकन करना होगा।

स्वयं द्वारा प्रस्तावित अनुशंसित पाठ्यक्रमों की एक सांकेतिक सूची इसके साथ संलग्न है। आईजीओटी पाठ्यक्रमों के लिए, कोई भी पंजीकरण कर सकता है और एआई, मशीन लर्निंग और सांख्यिकी के आधार पर प्रासंगिक पाठ्यक्रमों में शामिल हो सकता है।

सभी अधिकारियों को कम से कम एक पाठ्यक्रम में नामांकन करने और संलग्न प्रारूप में नामांकन विवरण प्रशिक्षण अनुभाग (training.ker1.au@cag.gov.in) को जमा करने का निर्देश दिया गया है। अधिकारियों को यह भी निर्देश दिया गया है कि वे पाठ्यक्रम पूरा होने पर अपने पाठ्यक्रम पूरा होने के प्रमाण पत्र की एक प्रति प्रशिक्षण अनुभाग में जमा करें।

In view of the increasing adoption of online processes within our department, it has become imperative for all officers and staff to enhance their knowledge and skills in the Information Technology domain. Hence, Headquarters office has directed that all the staff and officers including IAAS officers must enrol, in at least **one free online course** offered by **Swayam** (an initiative of IIT Madras) or **iGOT Karmayogi** platform.

An indicative list of the recommended courses offered by Swayam is attached herewith. For iGOT courses, one may register and join relevant courses on foundations of AI, Machine Learning and Statistics.

All the officials/officers are directed to enrol in at least in **one** recommended course offered by Swayam/iGOT and submit the enrolment details to Training Cell (training.ker1.au@cag.gov.in) in the

enclosed format. The officials are also instructed to submit a copy of their course completion certificates to the Training Cell upon completion of the course.

(महालेखाकार के दिनांक 11.12.2024 के आदेशानुसार)

वरिष्ठ लेखापरीक्षा अधिकारी / प्रशिक्षण
Senior Audit Officer/ Training

प्रतिलिपि/To

1. सभी अनुभाग (लेखा परीक्षा I)/
All Sections (Audit I)
2. कार्यात्मक विंग के समूह अधिकारी/
Group Officers of all functional wings (Audit I)
3. सूचना पट्ट/ परिपत्र पुस्तिका/
Notice Board/Circular Book

Brief overview on Courses on iGot and Swayam portals

Continuous Professional Education in Information Systems: Enhancing Skills in AI, ML, Statistics, and Mathematics

In our mission to adapt to the evolving digital landscape, it has become imperative to continually upgrade our skills and knowledge in the IT sector. With the transition of most IA&AD functions to online platforms, it is crucial for all officers and staff to gain a deeper understanding of Information Systems, particularly in areas like Artificial Intelligence (AI), Machine Learning (ML), and Data Analytics.

To equip our team with the foundational skills necessary for these advancements, a curated list of free, high-quality online courses is provided. These courses are offered by the SWAYAM Portal, an initiative by IIT Madras, and are specifically tailored to introduce key concepts in AI, ML, and related fields.

Importance of Statistics and Mathematics for AI and ML in Audit Work

The effective implementation of AI and ML in auditing requires a solid foundation in statistics and mathematics. These disciplines form the backbone of data analysis, predictive modelling, and algorithm design. By mastering these basics, auditors can:

- **Understand Data Patterns:** Identify trends and anomalies that may indicate areas of concern.
- **Develop AI Applications:** Utilize statistical and mathematical techniques to build simple AI/ML models for audit processes.
- **Prepare for Advanced Learning:** Create a pathway to learn advanced statistics and programming languages like R or Python for deploying sophisticated models in the

Recognizing this, the following courses have been identified on the **SWAYAM Portal**, an initiative by IIT Madras, for all officers and staff to undertake as part of our Continuous Professional Education program. These courses are free of cost, of high quality, and offer certification upon completion.

Recommended Courses

Foundational Courses

1. **Fundamentals of Artificial Intelligence**
By Prof. Shyamanta M. Hazarika | IIT Guwahati
[Course Link](#)
A beginner-friendly introduction to AI concepts and applications.
2. **A Basic Course in Machine Learning for All**
By Sumitra Padmanabhan
[Course Link](#)
Learn the fundamental principles of Machine Learning and its practical uses.
3. **Essential Mathematics for Machine Learning**
By Prof. S. K. Gupta, Prof. Sanjeev Kumar | IIT Roorkee
[Course Link](#)

Focus on mathematical concepts critical for AI and ML, such as linear algebra and calculus.

4. Descriptive Statistics with R Software

By Prof. Prashant Jha, Prof. Shalabh

[Course Link](#)

Understand statistical methods using R, a versatile tool for data analysis.

Any other course related to introduction/Use of AI , ML and data analytics may also be chosen.

Advanced Learning Opportunities

Staff interested in delving deeper may later explore advanced courses in statistics and programming, such as:

1. **Inferential Statistics and Predictive Analytics**
2. **Advanced Machine Learning with Python or R**

Why These Courses important

- **Enhanced Auditing Capabilities:** Learn how AI and ML can automate data analysis and identify anomalies effectively.
- **Data-Driven Insights:** Use statistical techniques to interpret audit data and support decision-making.
- **Future Readiness:** Equip yourself to audit systems that increasingly rely on AI, ensuring compliance with ethical and regulatory standards.

All officers and staff, including IAAS officers, are advised to enrol in at least one course from the above list as well any similar courses on iGOT platform within a week of receiving this email. Enrolment and completion of courses should be maintained at office level and the same will be taken by CTO wing for database creation for future use.

How to Enrol

a. SWAYAM portal

1. Visit the SWAYAM Portal: <https://swayam.gov.in>.
2. Search for the recommended courses.
3. Register and start learning.

b. iGOT

1. Visit iGOT Karmayogi portal: <https://igotkarmayogi.gov.in/#/>
2. Click "Sign Up" or "Register" on the homepage.
3. Fill in your details (name, email, phone, and relevant ID).
4. Verify your account via the confirmation link sent to your email/SMS.
5. Log in and explore available courses