



# 14-Day National FDP on Advanced Data Management & AI Applications in Medical Education & Healthcare using Excel & Access



**Mahatma Gandhi**  
Medical College & Research Institute



**Scrollwell In Collaboration with Department of Biochemistry  
Mahatma Gandhi Medical College and Research Institute, SBVU**

**Date:** June 23 - July 06, 2025 | **Time:** 6:00 PM - 7:00 PM

**Mode of Delivery:** Online through Zoom Video Conferencing platform.

**HOSTED BY: DEPARTMENT OF BIOCHEMISTRY  
MAHATMA GANDHI MEDICAL COLLEGE AND RESEARCH INSTITUTE, SBVU**



## About *Scrollwell.*

Scrollwell is a dynamic and emerging organization in the education sector, dedicated to strengthening the education system and providing expertise in live training for professional development. Our commitment to excellence is reflected in our successful series of Faculty Development Programs for Digital Literacy, which have reached over 44,850 faculties from July 2020 to July 2024.

At Scrollwell, we recognize the challenges posed by teachers in the digital era, and our team of experts is dedicated to equipping educators with the latest knowledge and skills to deliver effective education. Our training programs are meticulously designed to cater to the diverse needs of professionals and learners, covering themes such as Engineering, Education, Start-up, and Entrepreneurship.

Our mission is to bridge the technological gap in education and empower those who shape the future.

We are recognized by esteemed organizations including **Startup India, MSME and Skill India Supported by Start-up Bihar** and the Centre for Innovation, Incubation & Legal Entrepreneurship, Chanakya National Law University, Patna.

We are part of  
**#startupindia**



**MSME**  
MICRO, SMALL & MEDIUM ENTERPRISES  
सूक्ष्म, लघु एवं मध्यम उद्योग



**N.S.D.C.**  
National Skill Development Corporation  
Transforming the skill landscape

**Skill India**  
कोशल भारत - कुशल भवत

**STARTUP BIHAR**



## Mahatma Gandhi Medical College and Research Institute, SBVU Puducherry



**Mahatma Gandhi Medical College and Research Institute, SBVU Puducherry**, A leading medical institution in the country, having figured among the top 50 medical institutions, as per India Rankings 2024, released by NIRF, India. Named after the father of our nation Mahatma Gandhi, MGMCRI is head and shoulders above many a medical college in the country and continues to inspire the young and avid minds of prospective medical professionals.

A constituent College of Sri Balaji Vidyapeeth, Pondicherry (a Health Sciences Deemed to be University, accredited by NAAC with A++ Grade), MGMCRI offers a salubrious, yet academically challenging environment that boasts of an excellent reputation, synonymous with the availability of well qualified and experienced faculty, state-of-the-art infrastructure, well trained supportive staff, patient friendly health care team and above all eager, bright and discerning students who are ever ready to tread on their chosen path and profession with diligence, obedience, commitment, perseverance and dedication.

All departments at MGMCRI, have qualified, experienced and learned faculty, as per the norms laid down by the Medical Council of India. They are well-versed in the appropriate use of various teaching-learning methods and media. The quality of medical education at MGMCRI is constantly monitored and upgraded by a dedicated Medical Education Unit. This unit ensures that our students receive optimal training in the cognitive, affective and psychomotor domains. Our institution regularly deposes its faculty members to attend training programs in medical education technology such as the National Course on Educational Science for Health Professionals conducted by NTT, JIPMER, Puducherry and the Educational Leadership Development Program of the PSG-FAIMER Regional Institute, Coimbatore. In addition to these activities, the Medical Education Unit of MGMCRI conducts periodic in-house training programs including microteaching sessions to ensure that our medical teachers stay in touch with recent advances in medical education.



## TOPICS TO BE COVERED

### 14-Day National Faculty Development Program on Advanced Data Management & AI Applications in Medical Education & Healthcare using Excel & Access

This 14-day integrated program by Scrollwell and Meuindia is designed to equip medical educators, faculty members, and healthcare professionals with practical skills in data handling, statistical analysis, and digital transformation. The course combines the power of Microsoft Excel and Microsoft Access, with an emphasis on medical education, healthcare management, and AI integration.

#### Key Highlights:

- Master Excel for clinical, research, and academic applications.
- Learn advanced Excel tools: Power Query, Pivot Tables, Macros, and AI-integrated features.
- Gain hands-on skills in Microsoft Access for structured database management.
- Apply tools for NAAC accreditation and institutional data reporting.
- Develop dashboards, CDSS prototypes, and predictive models using Excel.
- Complete a real-world capstone project integrating both platforms.

#### Focus Areas

- Learned accurate data entry, cleaning, and validation techniques using Excel.
- Created charts and visuals to communicate clinical and academic data effectively.
- Applied Excel formulas and automation for assessments, scoring, and analysis.
- Built disease models and simulated outbreaks using epidemiological tools.
- Gained skills in designing databases and generating reports using MS Access.
- Applied analytics, predictive tools, and presented real-world healthcare projects.

#### Outcome

Participants will leave the FDP with:

- Improved accuracy in handling medical and academic data
- Developed skills in visualizing data for reports and decisions
- Mastered Excel formulas and automation techniques
- Gained experience in building disease simulations
- Learned to design and manage databases in MS Access
- Created integrated tools like dashboards and CDSS models



## TOPICS TO BE COVERED

### Day 1: Introduction to Excel in Medical Education & Healthcare

Gain an understanding of how Excel is used across medical education and healthcare operations.

This session introduces Excel's interface and explores its applications in managing clinical data, institutional documentation, and academic records.

### Day 2: Data Entry, Cleaning & Validation Techniques

Master the foundational skills of structured data entry and cleaning essential for clinical accuracy.

Includes techniques for formatting cells, setting validation rules (e.g., normal lab ranges), identifying missing data, and enforcing input consistency in health and academic datasets.

### Day 3: Charts, Graphs & Visualization in Clinical Contexts

Learn how to convert raw data into meaningful visual representations for decision-making and communication.

Covers bar charts for comparison, line charts for trend analysis, pie charts for proportions, and advanced visualizations such as combo and scatter plots relevant to patient data or academic performance.

### Day 4: Excel Formulas for Medical Logic & Calculation

Explore essential formulas to automate and analyze healthcare and academic data.

Includes logical functions (IF, AND, OR), lookup functions (VLOOKUP, XLOOKUP), statistical calculations (AVERAGE, STDEV), and applications such as disease classification, age calculation, and risk scoring.

### Day 5: Medical Education Tools: MCQs, Feedback, Schedules

Design Excel tools tailored to academic tasks such as assessment tracking, MCQ test automation, and academic scheduling.

Participants will build sheets that automate scoring, generate feedback based on scores, and construct dynamic student rotation plans.

### Day 6: Simulations & Epidemiological Models Using Excel

Build simple disease modeling frameworks and simulate outbreak dynamics in Excel.

This includes constructing SIR (Susceptible–Infected–Recovered) models, visualizing infection curves, analyzing attack rates, and exploring the effect of public health interventions.



## **Day 7: Advanced Excel Tools – Pivot Tables, Power Query & Macros**

Dive into tools that enable data transformation, analysis, and automation in healthcare workflows.

Learn how to create PivotTables for summarizing large datasets, use Power Query for automated data cleaning, and write simple macros to automate routine reporting tasks.

## **Day 8: Introduction to Microsoft Access for Healthcare**

Understand the structure of relational databases and the role of Access in healthcare data management.

Topics include designing tables for patient/staff data, defining relationships, using forms for data input, and structuring backend data for analysis.

## **Day 9: Writing Queries & Generating Reports in Access**

Gain practical skills in extracting and filtering data using structured queries.

Participants will create select and parameter queries, perform joins between tables, and design reports useful for NAAC, departmental audits, and student records.

## **Day 10: Excel-Access Integration for Seamless Data Management**

Learn to connect and sync data between Excel and Access for advanced reporting and management.

This session includes importing Access data into Excel, automating updates, and combining spreadsheet flexibility with database robustness for real-time dashboards.

## **Day 11: Statistical Analysis Using Excel Toolpak**

Perform basic and intermediate statistical analysis using Excel's Data Analysis Toolpak.

Includes descriptive statistics (mean, mode, standard deviation), inferential tests (t-tests, ANOVA, chi-square), and use cases like comparing treatment outcomes or evaluating academic performance data.

## **Day 12: Predictive Modeling & AI Concepts in Excel**

Introduce AI-powered features and predictive analytics using Excel's built-in tools and add-ins.

Participants will use forecasting tools (e.g., linear regression, moving averages), explore AI integrations like Excel Ideas, and build models predicting disease burden or resource demand.

## **Day 13: Case Applications – CDSS, Dashboards & Cost Models**

Develop real-life applications such as Clinical Decision Support Systems (CDSS), hospital dashboards, and cost analysis tools.

Use Excel logic and Access integration to build tools for early diagnosis alerts, real-time bed tracking, or cost-effectiveness modeling of medical interventions.



## *Know your* **TRAINER.**

As the founder of Scrollwell, I am passionate about strengthening educators and empowering learners. Through my work, I strive to build a world where everyone has access to quality education and the tools they need to succeed.

Creating impactful solutions that empower learners and strengthen educators. With over 5 years of experience impacting 55850+ teachers, students, and young professionals through classroom boot camps and online courses.

I am a Google Certified Educator with teaching experience in both traditional and online learning environments. Moreover, I am an MBA from National Institute of Technology, Jalandhar, and well accomplished in business planning, Microsoft Word, Microsoft PowerPoint, Microsoft Excel, and Digital Marketing. I have also consulted with various schools, organizations, and companies for education-related services across different geographies in India.

### **Roshan Kumar**

Founder and CEO - Scrollwell  
Google Certified Educator

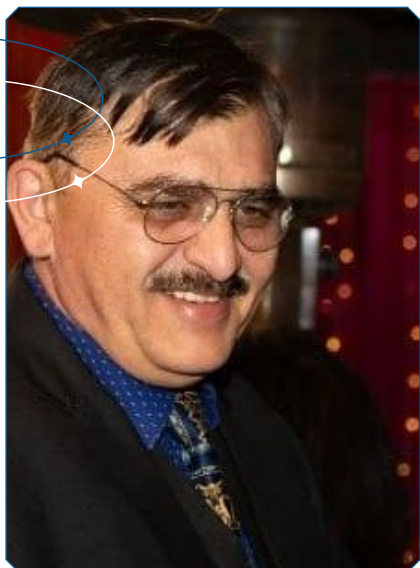
**Portfolio Link:** [www.roshansingh.me](http://www.roshansingh.me)

**Linkedin:** [linkedin.com/in/whoroshan](https://linkedin.com/in/whoroshan)

**Instagram:** [instagram.com/roshansingh.me](https://instagram.com/roshansingh.me)

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## *Know your* **TRAINER.**

As a distinguished Professor of Pathology and the CEO of MEUINDIA, brings over three decades of diverse experience in medical education and healthcare leadership. He completed his M.B.B.S. in 1990, followed by a Diploma in Child Health (D.C.H) in 1992 and an M.D. in Pathology in 1995. Demonstrating a unique blend of clinical expertise and administrative acumen, he pursued a Diploma in Energy-Cybernetics (Advanced Management) in 1996. A committed medical educator, he earned the prestigious FAIMER Fellowship in 2007 and further strengthened his academic credentials with a Diploma in Health Professional Education from Keele University, England, in 2018.

As a member of the Executive Academy of Health Professionals Education, Dr. Sanjay Bedi is deeply involved in advancing innovative practices in faculty development and curriculum reform. His leadership at MEUINDIA has been instrumental in shaping competency-based medical education and fostering excellence in academic medicine across India.

### **Dr. Sanjay Bedi**

Founder - Meuindia  
Professor of Pathology



# ORGANISING COMMITTEE

## Organising Chairman



**Dr.S.Sumathi**

Professor & Head  
Department of Biochemistry  
MGMCRI, SBVU Puducherry

## Organising Secretary



**Dr.T.M.J. Santhosha kumari**

Professor  
Department of Biochemistry  
MGMCRI, SBVU Puducherry

## REGISTRATION AND CONTACT DETAILS

### Program Fee:

INR 1500/- + Applicable GST

### Registration Link:

<https://scrollwell.com/course/14-days-fdp-on-advanced-data-management-ai-applications-in-medical-education-healthcare-using-excel-access/>



MORE DETAILS



REGISTER HERE

### Contact Us:

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# Star-Merit System

The Star-Merit System promotes consistent learning, accountability, and engagement, while providing faculty with clear metrics to support participants' success.

It evaluates individuals across key performance indicators—attendance, assignment completion, engagement, and overall participation—ensuring recognition is based on measurable, sustained effort.

| Category    | What It Means                          | Weight |
|-------------|--|--------|
| Attendance  | Are you showing up on time?            | 25%    |
| Engagement  | Do you participate in class?           | 25%    |
| Assignments | Are you submitting good work on time?  | 30%    |
| Activeness  | Do you help others or take initiative? | 20%    |

## Scoring Method

Each area is rated on a scale of 1 to 5. Use this weighted formula:

### Final Score =

$(\text{Attendance} \times 0.25) + (\text{Engagement} \times 0.25) + (\text{Assignments} \times 0.30) + (\text{Activeness} \times 0.20)$



## Certificate of Completion

This certificate is awarded to

**JAYA SIKDER**

from

**NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR**

has successfully completed the **07 Days Faculty Development Program on "Non - Parametric Data Analysis using SPSS"**. The program was held from **May 19 – 25, 2025**, and was hosted by **Scrollwell**.



**Roshan Kumar**  
Founder and CEO  
Scrollwell



**Dr Prabal Chakrabarty**  
Associate Professor  
JIMS, New Delhi



Certificate ID: SW20257568 and Date of Issue: May 25, 2025  
Certificate URL: <https://scrollwell.com/verify.php?certificateID=SW20257568>

# Star-Merit System

| Rating    | Performance   | Criteria Overview  |
|-----------|---------------|--|
| 1.0 ★     | Very Poor     | <ul style="list-style-type: none"><li>- Rarely attends sessions</li><li>- No meaningful engagement</li><li>- Assignments mostly missing</li><li>- Passive presence, if any</li></ul>   |
| 1.5 ★½    | Poor          | <ul style="list-style-type: none"><li>- Infrequent attendance</li><li>- Limited interaction</li><li>- Few assignments submitted</li><li>- Occasionally responsive</li></ul>  |
| 2.0 ★★    | Below Average | <ul style="list-style-type: none"><li>- Attends irregularly</li><li>- Minimal participation</li><li>- Late or incomplete submissions</li><li>- Shows some signs of interest</li></ul>  |
| 2.5 ★★½   | Low Average   | <ul style="list-style-type: none"><li>- Attends over 50% of sessions</li><li>- Sporadic engagement</li><li>- Most assignments submitted but without depth</li><li>- Limited but improving involvement</li></ul>              |
| 3.0 ★★★   | Average       | <ul style="list-style-type: none"><li>- Regular attendance</li><li>- Participates when prompted</li><li>- Submits assignments on time with basic quality</li><li>- Shows consistency but lacks initiative</li></ul>          |
| 3.5 ★★★½  | Fairly Good   | <ul style="list-style-type: none"><li>- Above-average attendance</li><li>- Engages occasionally on own</li><li>- Assignments meet expectations</li><li>- Demonstrates increasing initiative</li></ul>                        |
| 4.0 ★★★★  | Good          | <ul style="list-style-type: none"><li>- Consistent attendance</li><li>- Active in discussions and activities</li><li>- High-quality assignment submissions</li><li>- Often takes lead or helps peers</li></ul>               |
| 4.5 ★★★★½ | Very Good     | <ul style="list-style-type: none"><li>- Nearly full attendance</li><li>- Proactively engages in learning</li><li>- Assignments show depth and originality</li><li>- Acts as a motivator or role model</li></ul>              |
| 5.0 ★★★★★ | Excellent     | <ul style="list-style-type: none"><li>- 100% attendance</li><li>- Highly engaged in all sessions</li><li>- Consistently exceptional assignments</li><li>- Fully active, collaborative, and adds value to the group</li></ul> |

# Scrollwell Advantage



## Intuitive & Detailed Explanations

"Inspiring lectures with clear, concise, and engaging explanations."

## HD Videos + Crystal Clear Audio

"High-quality videos with clear audio for optimal viewing experience."



## Practice Exercises, Real-Time Feedback

"Improve skills with interactive exercises and instant feedback."

## Lifetime Access, Pocket Friendly

"Long-term value with budget-friendly options for continued access."



## Project-based learning

"Hands-on learning through practical projects and real-world application."

## Star-rated Completion Certificate

"Official recognition of completion for added credibility and motivation."

