

Safeguarding the integrity of

Online exams

How Mercer | Mettl empowered IIM Bangalore to conduct secure online proctored examinations



About the University:

Founded in 1973, the **Indian Institute of Management Bangalore (IIMB)** is an acclaimed public business school located in Bangalore, India. Accredited as an institute of national importance, IIMB was the third IIM to be established after IIM Calcutta and IIM Ahmedabad. It reigned supreme in the QS University Rankings 2019 in India and continues to feature prominently amongst the top B-schools in Asia.

The institute offers a comprehensive range of Post Graduate, Doctoral, and Executive Education programs. In addition to its notable academic courses, the institute facilitates research, provides consulting services, conducts seminars, educational conferences, and publishes insightful journals.



Identifying Problems, Challenges, and Business Requirements:

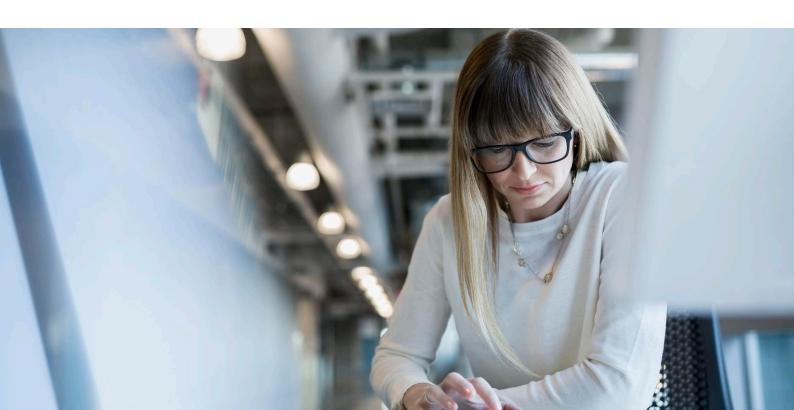
IIMB has an enviable legacy of building empowered leaders through holistic, transformative, and innovative education. From imagining new ways to adopting new waves, IIMB is continually evolving its learning paradigm. There has been substantial growth in the institute's interest in education technology with significant sectoral advancements. The school wanted to expand its knowledge base, beyond the current landscape. It wanted to catalyze a more equitable approach to high-quality education amid the growth of the workforce and changing preferences of the students.

Thus, IIMB launched a set of preeminent digital learning programs in 2014, which envisioned creating a pathway for professional growth. IIMB's Massive Open Online Courses (MOOC) were made available across multiple platforms such as edX, The Government of India's (GoI) online learning platform (Swayam), and its own platform - IIMBX. These courses resulted in significant educational engagement as professionals started pushing the boundaries and challenging themselves. With a focus on upskilling or reskilling, they began experimenting with this desirable change. It enabled professionals to plan a future course of action and fast-tracked their careers.

Among several online learning programs offered by IIMBX, the most prominent ones were:

- Certificate Programme in Technology and Management (in collaboration with IIT Madras)
- Young Leaders Program





Over 1.2 million learners spread across 190 countries were accessing these programs without worrying about classroom teaching.



Challenges:

IIMB's legacy of revolutionizing the learning space witnessed immense diversity, significant cross-learning, and a continuing networking opportunity beyond the classroom. While the course seemed highly desirable amid the unprecedented growth of digital learning, IIMB attested to a few risks associated with the shift to a more progressive model.

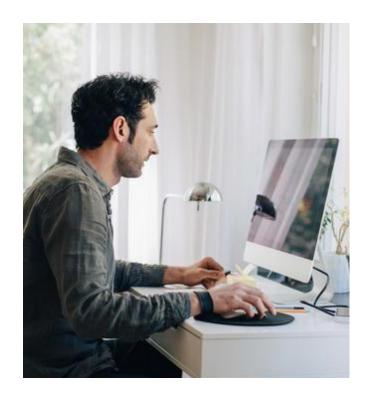
Robust Examination Platform:

IIMB needed a dynamic end-to-end examination platform that was easily accessible and location-agnostic for learners and examiners. It had to be extremely secure, scalable, and versatile to support multiple question types and exam formats without any operational complexities. The school wanted to digitize the management to deliver more prudent, transparent, and efficient results. Additionally, IIMB also desired flexibility in accommodating special requests, such as the possibility of enabling a human proctor to deter students' attempts at cheating.

Preserving Academic Integrity:

Being a part of the high-stakes segment meant IIMB needed an airtight solution to prevent cheating/unfair means during the examination. Since the exams were online and attempted remotely by candidates, the school's requirement was a robust anti-cheating policy with proctoring/remote invigilation mechanism to ensure candidates attempting the test couldn't resort to any illicit means. After all, IIMB's brand integrity was subservient to the quality, conduct, and administration of online exams.

IIMB wanted to reinvent examinations in the digital age, besides seeking the same quality and rigor offered in their classrooms. Hence, it wanted to collaborate to create a blend of futuristic assessment solutions to resolve significant challenges in high-stakes exams, online assessments, and certifications. Its requirements also demanded a minimum technical hassle but a strong tech backbone, in compliance with the IIMB's tech team.



For our IIMBx program, we needed an online system that preserved academic integrity & allowed us to conduct exams with the same quality as in classrooms.

P D Jose

Professor, Corp. Strategy & Policy **IIM Bangalore**



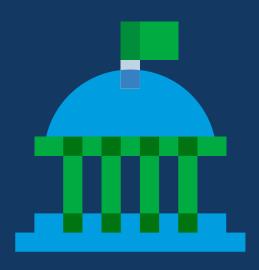
Solutions:

Mercer | Mettl gained detailed insights into IIMB's digital strategy

From addressing priorities to solving the most pressing challenges, the team wanted to understand the precise nature of requirements to make informed decisions. Mercer | Mettl curated blueprints to best accelerate the adoption of online tools with minimal technical adaptability.

After careful consideration, IIMB was recommended a suite of Mercer | Mettl's futuristic online technologies- Online examination Platform and Mettl's Proctoring as a Service. These two advanced sets of tools were used to solve IIMB's challenges.

Both these value propositions were not only synergized with IIMB's existing requirement but also its future need to enable blended learning.



Online Platform:

Mercer | Mettl's Examine: IIMB leveraged Online Examination Software System, a competent, end-to-end solution to meet its online examination requirements. The comprehensive software enabled the institute to seamlessly host online exams for a variety of digital courses.

Mercer | Mettl solved three significant challenges

Scale:

IIMB wanted to scale its digital foundation beyond the traditional realm. The school was eyeing ample reach with efficient operation and performance. Mercer | Mettl's software was adept at meeting large-scale, high-stakes exam requirements. The robust technology had a proven track record of conducting 100,000 successful proctored assessments in one day.

- Mettl platform was able to accommodate the increasing needs of IIMB's program(s) that received sizable enrollments. The Mercer | Mettl platform also supported multiple exam-takers across various locations globally, without a glitch.
- Considering IIMB's different exam patterns and user requirements, the platform offered 26 different formats for exam papers. It included MCQs, objective questions, lengthy essay-type questions, skills-based questions, simulation questions as well as personality tests, etc. The integration was undertaken at their perusal.

Experience:

Initially, IIMB was habituated to a more old-school classroom functioning and was wary of experimenting with newer means of examination. However, with platform demonstration and positive word-of-mouth references from fellow faculty members, there was a visible transition.

- The online examination software replicated and created a real-life exam experience to retain the traditional look and feel of an exam for the administrator
- It was user-friendly, easy to navigate, and the management didn't need much technical knowledge or experience to understand its functionality
- The platform complimented IIMB's e-learning prerequisites with no change in the experience for exam-takers



"A great tool is one that does not require too much training."

P D Jose

Professor, Corp. Strategy & Policy



Academic Integrity and Cheating Prevention:

Academic integrity is not just the crux but a core competence of IIMB's educational offerings. Any violation undermining the institute's prestige and legacy were unacceptable. Thus, the platform's preconfigured proctoring technology with a stricter focus on monitoring, analysis and scrutiny was an ideal choice to maintain the institute's values. Proctoring eliminated the most glaring vulnerabilities with a dynamic set of anti-cheating features.



Candidate Authentication:

A 3-point candidate authentication was enabled to confirm whether the right candidate was taking the exam. It meant that live authentication began after the candidate clicked on the exam link.

- First, the webcam asked students to click their photo
- They also had to show one of their ID proofs to the camera
- They were further needed to send across customizable registration details verified by platforms proctors against the previously collated data



AI Proctoring:

With remarkable cheating predictions and over 95 percent accuracy, Mercer | Mettl's Al Proctoring was hands-on at identifying any questionable behavior during the exams.

The intelligent algorithm was configured to flag a variety of suspicious cases, such as the non-visibility of face/ presence, detection of mobile phone, presence of an additional person, a distracted eye movement, etc. These features negated any possibility of malpractice during the online proctored exam.



A secure browser feature allowed academicians to host the exam in a safe environment without worrying about on-screen cheating. From enabling browser lockdown functions, allowing minimum navigation control to block all external ports - MSB restricted access to any and every unauthorized resource possible.

Mercer | Mettl's technical backend team ensured continual client support. It worked actively to keep the software up to date, compatible, and error-free.

Auto-graded Assessment:

Automated reports served as the new means of evaluation for IIMB. By replacing the static grading process and eliminating manual correction, the institute was able to magnify the faculties' productivity and improve operations.

- The advantages of the platform's auto-grading functionality assisted in conserving a substantial time spent in evaluation of test papers. It streamlined the tedious process and generated immediate results with optimum reliability and validity
- Real-time data generation enabled real-time analytics to provide detailed insights on teaching and student learning
- Auto-graded, system-generated comprehensive reports on the candidates' performance and a wholesome summary of their attempt

With the above-mentioned features, Mercer | Mettl's technical backend team ensured constant client support. It worked actively to keep the software up to date, compatible and error-free.



Mettl's Proctoring as a Service (MPaaS):

It was the other crucial technology applied to enhance IIMB's digital capabilities with a more focused and customized approach. MPaaS was integrated to extend the candidates' ability to take exams from the institute's existing legacy Learning management system (LMS), IIMBX. Additionally, a remote invigilation and security layer was added to its LMS to eradicate any possibility of compromising the integrity of online exams.

Mercer | Mettl solved two crucial pain-points

Proctoring to preserve integrity:

A prerequisite of the exam was that students had to enable proctoring on their devices. They had to accept sharing their screen, video, and audio. With one-to-one and one-to-many proctoring features, live proctoring provided a classroom view for the human invigilator who was monitoring remotely from start to finish. A live chat option enabled the invigilator to chat with students in case of any suspicion. IIMB's customizable requirements provided the proctor an added feature to pause/stop/resume the test in real-time. This entire recorded session could be viewed later using the proctoring software.

Credibility index to maintain the authenticity of the certification:

Mercer | Mettl's proprietary algorithm- Credibility Index - provided excellent and most relevant results to the administrators. An auto-generated report highlighted the candidate's integrity score for a proctored session. With valuations such as high, medium, and low, examiners could swiftly identify and filter out candidates who might have resorted to cheating during the test. Insights from AI flags, recorded details of the proctoring sessions, and test finish status formed the basis of the analysis. That was vital for IIMB in guaranteeing the authenticity and assuring that the most deserving students were awarded the much-acclaimed certificate.

IIMB was extremely pleased with the technology and services offered by Mercer | Mettl.

The Mercer | Mettl's operation team continually communicated with the institute's tech team, preparing the environment and process to conduct the online exam.

"Working with Mercer | Mettl has been a seamless experience for our technology and program staff."

P D Jose

Professor, Corp. Strategy & Policy **IIM Bangalore**

Impact:

Here are some key results:

- The institute witnessed a drastic reduction in instances of cheating after shifting to Mercer | Mettl's examination tools
- With Mercer | Mettl's automated result feature, the results were generated almost instantaneously
- The institute was able to offer credible certificates to deserving students after evaluating the actual performance
- Mercer | Mettl's online platform compliance enabled the institute a comprehensively wider reach with significant enrollments from global candidates

Digital learning foresees a positive education revolution. A system that not only provides unlimited teaching opportunities but empowers a learner with innovation. Mercer | Mettl is at the forefront of this transformation. By ensuring world-class digital accessibility powered by authenticity and reliability, it is helping institutes advance with the times. Numerous renowned establishments are facilitating a positive disruption in their existing pedagogies as Mercer | Mettl emphasizes on maintaining academic integrity. It is not just suggesting a road map to greater accessibility but taking the world beyond the limits of digital imagination.



As the value chain of the education systems continues to get disrupted by new technologies, Mercer | Mettl is at a sweet spot in testing. I believe they are going to play an important role in the future of the education space.

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About Us

At Mercer I Mettl, our mission is to enable organizations to make better people decisions across two key areas: Acquisition and Development. Since our inception in 2010, we have partnered with 4000+ corporates, 31 sector skill councils/ government departments, and 15+ educational institutions across 90+ countries.



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