

***Case Study***  
***on***  
***Egovernance Training and Certification***

*An Award winning*

*Online training and certification programme by*

**Directorate of Information Technology**

**Government of Maharashtra**

*Website :*    *egovtraining.maharashtra.gov.in*

*it.maharashtra.gov.in*

## **1. eGovernance Training and Certification as case study**

Government of Maharashtra is one of the “Leader” states in India, for its leadership position in eGovernance projects. DIT, Government of Maharashtra has announced in eGovernance Policy in 2011. Government of Maharashtra is currently implementing more than 300 e-Governance projects across various state departments. In order to ensure successful implementation of these initiatives and sustained development of e-Governance in the line departments, it is necessary to create strong IT teams across all stakeholder areas. To quickly address the training and capacity building needs, DIT, under leadership of Secretary (IT), Shri Rajesh Aggarwal formulated this unique initiative of online training and certification for all stakeholders working in eGovernance domain in Maharashtra as well as at National level.

This case study describes this unique project of DIT, called “eGovernance Training and Certification”. This project has website <https://egovtraining.maharashtra.gov.in>

## **2. Project Context**

This project is first and unique online certification programme, for anybody working in the field of eGovernance. Anybody can apply for this certification free-of-cost. More detail about this initiative is provided in the case study.

## **3. Scope of Case Study**

This case study covers the following aspect of the project

- Objectives of Training process
- Stakeholders for the project
- Evaluation Methodology
- Reward Process
- Business Process Reengineering carried out
- Progress of the project
- Key Achievements and Benefits
- Change Management and Capacity Building
- Way ahead and Future Enhancements

## **4. Uniqueness of the project**

This project is very unique kind of project in India. It is the ONLY training and certification initiative in India, for eGovernance Domain, available FREE-OF-COST to participant in online manner. The entire process is online and the certificates are also delivered through email to the successful candidates.

## **5. Methodology adopted for case writing**

The authors are the primary source of the information. They are the key project drivers and instrumental in driving this project since its inception. The statistics are source from the candidates for all batches of the egovernance training and certification. More over feedback from candidates and other stakeholders was collected through email and personal interviews. This project has won two awards viz. Skotch Order of Merit Award and CSI-Nihilent Award this year. Project Presentation delivered during those award selection process are also referred here.

## 6. Profile of Authors

1. Rajesh Aggarwal

Secretary ,IT & Secretary, Accounts and Treasuries with Govt. of Maharashtra. An IAS officer of the 1989 batch, he did B.Tech. in Computer Science from IIT, Delhi (1983-87), before moving to IAS (Indian Administrative Service) in 1989.



He is also a prolific writer and has written numerous articles and papers on e-Governance, including the much acclaimed paper titled 'e-Gov o.o – the fundamentals of e-Governance'.

2. Jitendra Mandalia, Principal Consultant, SeMT, DIT

Jitendra is Principal Consultant, in State eMission team, DIT, GoM. He is from the consultancy firm, PricewaterhouseCoopers Pvt. Ltd. He has over 22 years of multi-domain IT experience (Software/ Banking/ Government/ Telecom domains), R&D as well as corporate IT industry exposure.



Before joining PwC, he was the Principal Consultant for Delhi SeMT. He also served as Member of the Expert Committee of DIT, GoM and Vice President of (IS/IT) at IOL Netcom Ltd. Prior to this, he was working with NCST, now merged with C-DAC.

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## **1. Abstract**

This case study describes a very unique and innovative initiative from Directorate of Information Technology, Government of Maharashtra, for online training and certification in eGovernance Domain. This project has website called [egovtraining.maharashtra.gov.in](http://egovtraining.maharashtra.gov.in), where any candidate can register and appear for this online examination, free-of-cost.

## **2. Keywords**

Online Training, Online Certification, Egovernance, Directorate of Information Technology, DIT, Government of Maharashtra

## **3. Note for Practitioners**

It was learnt that the standard courses available for the topics of “eGovernance” were of theoretical type. They did not have that practical edge, that is required in to work practically in eGovernance domain at state/central government level. This case study highlights a unique project initiative by Directorate of Information Technology, Government of Maharashtra to address above challenges and bridge the knowledge and experience gap.

Entire project design, including the course material, question paper-sets, Examination Methodology and Evaluation/Grading methods were designed in a specific way to address these issues.

The key take-away from this case study is the uniqueness of this project and its ability to replicate itself for any other state or organisation. This project employs some of the best methodologies and tools for candidate training, assessment and rewards.

## **4. Stakeholders for the project**

This programme is open to everyone working in the field of eGovernance. Moreover, it is noticed that the important stakeholders can be categorised as follows:

Project Execution	Beneficiary Organisations	Participant stakeholders
<ul style="list-style-type: none"> <li>•DIT, GoM</li> <li>•Mentors (Evaluators)</li> </ul>	<ul style="list-style-type: none"> <li>•Government Departments</li> <li>•Consulting Companies</li> <li>•Software / SI Companies</li> </ul>	<ul style="list-style-type: none"> <li>•Consultants</li> <li>•Software Professional s</li> <li>•Government Employees</li> <li>•Student/Ex-Student</li> <li>•CSC/SETU/Cybercafe staff</li> <li>•NIC Officials</li> <li>•Other Govt officers</li> </ul>

## 5. Objectives of Training process

This programme aims to facilitate learning of basic and fundamental concepts of e-Governance with practical scenarios.

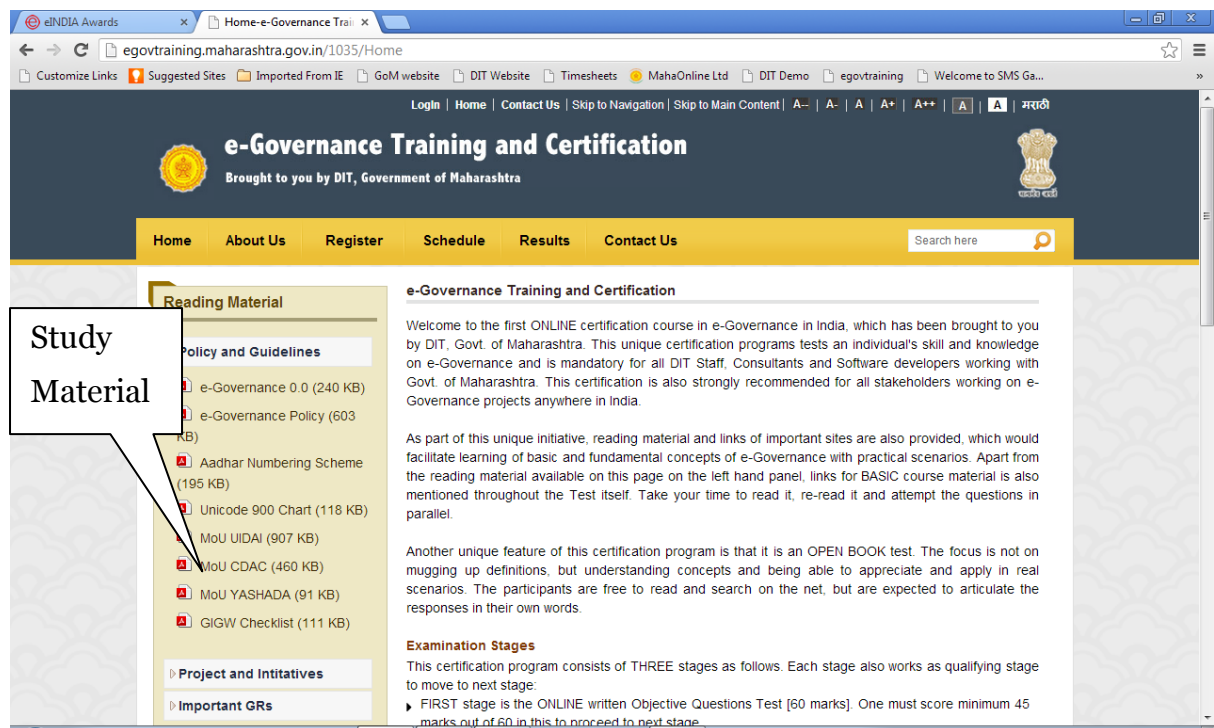
The exam checks the fundamental/practical knowledge grasped by the candidate. Rather than theoretical concepts and examples, this programme stresses upon practical knowledge. The focus is not on mugging up definitions, but understanding of concepts and being able to appreciate and apply them in real project scenarios.

## 6. Project Overview

eGovernance Training and Certification” is the first and only ONLINE certification course in e-Governance in India, managed by Directorate of Information Technology (DIT) , Govt. of Maharashtra. It is open to all, at national and International level. This unique certification programs tests an individual's skill and knowledge on e-Governance. This programme aims to facilitate learning of basic and fundamental concepts of e-Governance with practical scenarios. Its objective to test the fundamental/practical knowledge grasped by the candidate, rather than mugging of definitions etc.

### ***Project Website***

The project website is <http://egovtraining.maharashtra.gov.in>



As part of this unique initiative, reading material and links of important sites are also provided on above website, which would facilitate learning of basic and fundamental concepts of e-Governance with practical scenarios.

Apart from the reading material available on this page website, links for additional reading material are mentioned in the online question paper (in-line links).

Another unique feature of this certification program is that it is an OPEN BOOK test. The participants are free to read and search on the net, but are expected to articulate the responses in their own words.

### ***Evaluation Methodology***

Three-stage evaluation process is followed for this examination:

1. Online objective Q&A
2. Online subjective Q&A
3. Personal/Face2Face interview (though video-chat or in person)

<b>Evaluation Stage</b>	<b>Marks</b>	<b>Description</b>
<b>FIRST</b>	60	FIRST stage is the ONLINE written Objective Questions Test. One must score minimum 45 marks out of 60 in this to proceed to next stage

<b>SECOND</b>	100	SECOND stage is ONLINE written Subjective Questions Test. One must score minimum 60 marks in this to proceed to next stage
<b>THIRD</b>	40	THIRD stage is Personal interview (either in-person or on Video-Conferencing tools, One must score minimum 20 marks in order to pass the certification

### ***Grading Method***

All candidates are graded in the following way:

<b>Grade</b>	<b>Marks Criteria</b>
<b>Mentor</b>	75 or above in Subjective test AND 30 or above in Personal Interview AND excellent understanding of eGovernance principles and domain knowledge. This grade would be awarded at the discretion of the authority conducting the Examination.
<b>Distinction</b>	75 or above in Subjective test AND 25 or above in Personal Interview.
<b>Pass</b>	60 or above in subjective AND 20 or above in Interview

### ***Reward Process***

All successful candidates (Pass, Distinction and Mentor categories) are awarded a Certificate Of Achievement for the course. Mentor Title is granted to exceptional candidates as described above. Mentors and Distinction candidates are awarded with Cash prize too, from DIT, Government of Maharashtra.

<b>Grade</b>	<b>Cash Prize</b>
<b>Mentor</b>	Rs 5000/-
<b>Distinction</b>	Rs 2500/-

The certificate of Recognition, which is awarded to all successful candidates, is shown below:





## 7. Business Process Reengineering

As indicated earlier, this is online training course. The approach in this project/training process is RADICALLY different than traditional eGovernance courses being offered elsewhere.

The following important processes related to conventional eGovernance training were re-engineered for this project:

### ***(A) Online Training***

Rather than classroom style training, here, reading material and links of important sites are also provided on above website, which would facilitate learning of basic and fundamental concepts of e-Governance with practical scenarios. Apart from the reading material available on this page website, links for additional reading material is mentioned in the online question paper.

### ***(B) Online Examination***

The examination process is online, in three stages, Online objective Q&A, Online subjective Q&A and Personal/Face-to-Face interview (though video-chat or in person)

### ***(C) Use of cloud services***

The registration process and online examination process (test attempts, evaluation, results etc) is done using cloud services.

### ***(D) Use of Mentors***

All candidates with excellent understanding of eGovernance principles and domain knowledge, who score very high as per grading criteria specified above, are selected as mentor. A team of “Mentors” is built in this process, as project progresses, thus helping DIT, to further propagate and enhance the project.

Team of “Mentors”  
from first batch  
facilitated by Hon.  
Chief Secretary,  
Govt of Maharashtra



### ***Contribution from Mentors***

- Mentors also guide prospective candidates.
- They take part in the evaluation process.
- They also build and expand the question bank.

## **8. Progress so far**

Since the start of the project in October 2012, eight batches of certification is completed. Over 3000 participants registered in the project. 300+ candidates have been certified till now.

The website is Google TOP RANKER for the keyword search “eGovernance Training and certification”. The website has approximately 25000+ visits till now.

## **9. Challenges in Implementation**

As such, there were no technical challenges faced for implementing above changes, as we had selected right kind of tools and technologies. Also the changes were easy to be accepted by all stakeholders.

## **10. Key Achievements and Benefits**

This programme has become widely popular initiative in Maharashtra and at National Level.

### ***Key Achievements***

- Participation by candidates from all over India as well as foreign countries (from USA/Africa etc)
- Immense improvement in knowledge base of participating candidates
- Improvements in quality of the project work being executed by successful candidates, due to better knowledge dissemination
- Early and effective adaptation of newer technologies in some of the eGovernance projects of Government of Maharashtra

The candidates, who have gone through this certification process, are the REAL BENEFICIARY of LEARNING process! They have greatly appreciated the training and evaluation methodology. Some of them have even started to use similar approach in their organisation/company to evaluate their staff working in eGovernance Domain.

### ***Efficiency and Improvement in eGovernance Projects***

It has saved time and effort for identification/selection of eGovernance project resources within government departments as the candidates with “eGov certification” can be selected right away, as DIT has done “testing” of these resources.

Noticeable improvements in quality of the project work being executed by successful candidates have also been reported, as their knowledgebase has increased.

There has been early and effective adaptation of newer technologies in many eGovernance projects of Government of Maharashtra, due to wide variety of subjective/topics chosen for drafting of question papers.

## **11. Key Lessons learned**

The choice of technology and the implementation strategy was perfect fit for success of this project. The improvement seen by all stakeholders who have participated in the projects is visible through the sample feedback and interviews conducted.

The maintenance of the question bank and guidance to candidates was done by mentors to the optimal level. The online interview process is also smooth and effective through use of online video conferencing/chatting tools.

## **12. Change Management and Capacity Building**

This project has adopted a set of unique change management and capacity building steps, to ensure success and sustenance of the project over longer time-frame. These are highlighted below.

### ***Leadership support***

This project has full support from Leadership of all stakeholders. Secretary (IT), who has created blue-print of the project, monitors the project on regular basis. DIT officials also take active part in the project initiatives

### ***Capacity building strategy***

The team of mentors, created during the project process, becomes part of the capacity building exercise and further propagates the project.

### ***Sustainability***

As described above, the team of mentors makes the project sustainable. The process is institutionalized within DIT, GoM.

### ***Financial Support***

This project is self-funded (i.e. funded by DIT). Due to use of cloud services, the infrastructure cost is negligible.

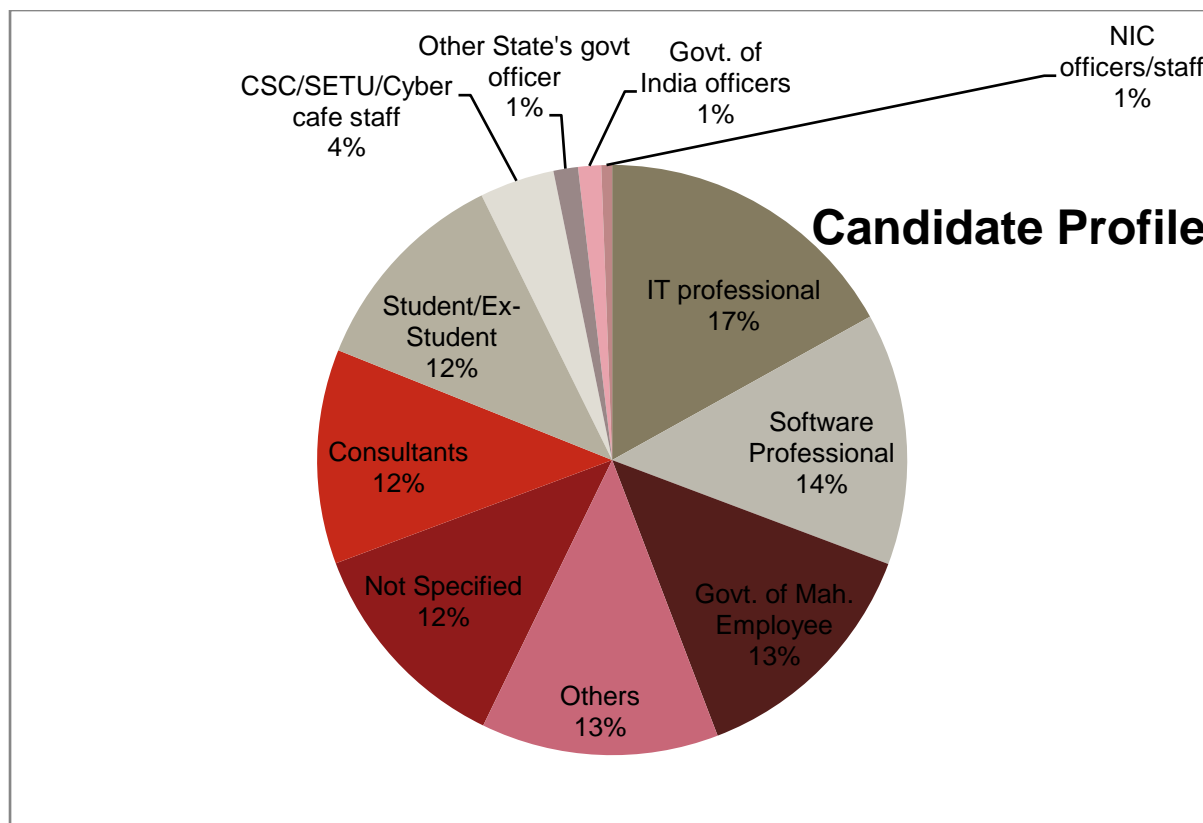
### ***Technology Solution Used***

The project uses cloud technology for major modules of the examination process. It uses a third-party cloud solution for registration of candidates. It uses a very popular MOOC platform [www.classmarker.com](http://www.classmarker.com) for online assessment, grading, results etc.

All information for this examination is maintained as secured and confidential; including papers etc though use of proper login credentials of classmarker platform.

## **13. Case Fact Sheet**


Over the course of the project, statistics of the participants were collected. The table below shows the classification as per participant profile.







### Batch Information

Batch	Registrations	Eligible Candidates	Certified Candidates
001	472	299	113
002	484	474	81
003	103	90	25
004	370	322	25
005	312	340	23
006	335	330	28
007	318	297	23
008	545	481	31 (interview stage)

### Candidate Feedback

 <p>Shruti Upadhyay Asst Professor Gujarat Technological University, A'bad</p>	<p>This unique programme that adds value to Indian e-governance. It accesses the certificate aspirants in all facets.</p> <p>I am pursuing PhD. In e-governance and I got the best opportunity by government of Maharashtra to improve my professional qualification. With the help of this certification, I learnt the real concepts and I came across many innovative e-governance practices. I am very much thankful to very cooperative team of this program.</p> <p>I must say that this is the best step towards capacity building. I proudly say that I am a part of egov o.o family.</p>
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 <p>Pravin Kolhe WRD, Kolhapur</p>	<p>... his was my first experience of online course. It was excellent. This is far different from conventional examination model. I like it! It helped me in <b>pursuing EPGP-EG at IIM Indore</b>. The three tier pattern of objective exam, subjective exam and personal interview through skype assured transparency in conduct of examination and also ensured learning. The questions are drafted in such a way that only understanding of concepts will help in answering it. The speed of learning and evaluation was excellent. I learned many new things, personalities such as Kim Dotcom, Sal Khan and Aaron Swartz. Also I started spending my time on <b>Coursera</b>, to learn many free online courses. I think, this is one of the pioneer course not only in e-Governance but in online learning as a whole.</p>
 <p>Sandeep Singh Gaur, CEO Techchilly Consultants, Indore/Bangalore</p>	<p>... At this eGovernance Training and Certification program, three I's were splendid which draw the attention of major IT companies in and across India:</p> <ul style="list-style-type: none"> <li>▪ <i>Idea : Conceived and given shape brilliantly by DIT</i></li> <li>▪ <i>Implementation: Implemented in an exceptional manner</i></li> <li>▪ <i>Initiative: Instead of just making verbal heaps, this was the initiative which reached to everybody from Kashmir to Kanyakumari, from West Gujarat to Far East Arunachal Pradesh.</i></li> </ul>
 <p>Rashmi K MBA Student, NMITD</p>	<p>...This enterprising programme initiated by Govt. of Maharashtra has opened up new avenues for <b>students like me</b> to understand and gain an insight into the highly commendable endeavor by our Government in making a difference in every individual's life which is often unrecognized. This programme has provided knowledge regarding several prestigious projects being successfully implemented, like eTendering, CSC's, Direct Cash Transfers, SRDH, eOffice and Aadhaar Card.....</p>
 <p>Gargi Banerjee Consultant, SeMT</p>	<p>...The course was a very enriching experience. It was a great chance to know about the multiple IT initiatives at National and State Level. It cleared concepts about different eGovernance projects such as UIDAI and the benefits to the citizens of India. Understanding the key benefits of a project and identification of its long term sustainability &amp; scalability are the major learning achieved through the course. The course clarified the importance of Business Process Reengineering for Government and to look for project proposals that are just GIGO (Garbage In – Garbage Out).... Overall the course was a great eye opener and an immense learning experience.</p>

## 14. Value Indicators

The Value Indicators are high level goals and objectives which can be used as guiding philosophies for defining visionary scenarios within which to place e-Governance projects.

### ***Digital Inclusion***

Language, demographic and Cultural differences may result in certain types of stakeholders not getting fully benefitted from e-Governance initiatives. This project aims to bridge that gap, by providing quality training about egovernance in online method, so that everybody can learn about egovernance.

### ***Capacity Building***

Through this unique initiative, the capacity building of all participants working in eGovernance field takes place more effectively and at faster pace. It also brings standardisation in knowledge dissemination, though use of same study material and tools across all batches.

### ***Green e-Governance***

This project also qualifies for Green e-Governance initiative as it does away with conventional (paper consuming) method of examination assessment using paper and pen/pencil. Here everything is online. Even the certificate to each successful candidate is sent online in PDF form (print copy is not given).

## **15. Awards Won**

Within ONE year of its operation, this project has won two awards. These awards are:

- Skoch Order of Merit Award 2013
- CSI-Nihilent Award 2013

## **16. Future Enhancements and Way ahead**

This training and certification programme shall become integral part of Virtual IT Cadre initiatives of Govt of Maharashtra. Improvements planned

- Larger question bank
- Automated certification (with only objective papers)
- Paid registration for specialized certification (UID, DBT, Localization, Accessibility etc)

DIT is also proposing collaboration with NeGD to take this to the national level, to have standardized training and certification platform

In the next phase of this project, the following variations/modular certification is planned

There will be two types of certification process:

- First variety : Free certification will offer objective type of testing and online certification generation
- Second Variety : This will be PAID option, where candidate can pay online fee (say Rs 500) and appear for objective as well as descriptive (subjective testing)

Specialised modules in specific areas of egovernance (e.g. UID, DBT, Localisation etc) would also be offered.

### ***Replicability of the project***

With this innovative idea and modular design of course material; different modules and paper-sets can be made available for different categories of candidates. Thus, it can also be replicated in universities, training institutes etc.

## **17. Acknowledgement**

The authors acknowledge the efforts put in by Secretary (IT). The mentors of the project are also instrumental in success of the project. The following list enumerates mentors for this project (in alphabetical order):

1. Aarti Harbhajanka
2. Abhishek Verma
3. Bhargav Desai
4. Brijendra Kumar
5. Devroop Dhar
6. Jitendra Mandalia
7. Krunal Sidhpura
8. Mahesh Wakode
9. Mandar Gupte
10. Naren Kachroo
11. Nilesh Gauda
12. Nirav Shah
13. Priti Ramesh Rohra (Accessibility)
14. Santosh Bhogle
15. Shamik Joshi

The authors also acknowledge participation of over 3000 candidates in this initiative, to make it grand success.

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