

## AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

### NAME OF CATEGORY- 'SPECIFIC SECTORAL AWARD for 2014-15: SKILL DEVELOPMENT AND EMPLOYABILITY'

#### 1. Coverage – Geographical and Demographic :-

##### (i) Comprehensiveness of reach of delivery centres,

The DRDO website is a large website which consists of more than 15000 web pages as a whole (including the Hindi version). The website is fully bilingual (English and Hindi). The DRDO website has been developed in such a way so that it enables more than 71 different Units/Directorates of DRDO, scattered all over India, to upload content on a central location maintaining a consistent look and feel of the website

##### (ii) Number of delivery centres

###### **71 centers across India**

List of Departments/Offices/Labs of DRDO and respective URL s are mentioned under:

###### **BANGALORE zone based Labs and respective websites**

1. [Aeronautical Development Establishment \(ADE\), Bangalore](#)
2. [Center for Artificial Intelligence and Robotics \(CAIR\), Bangalore](#)
3. [Centre for Air Borne Systems \(CABS\), Bangalore](#)
4. [Combat Vehicles Research and Development Estt. \(CVRDE\), Chennai](#)
5. [Defence Avionics Research Establishment \(DARE\), Bangalore](#)
6. [Defence Bio Engineering and Electro Medical Laboratory \(DEBEL\), Bangalore](#)
7. [Defence Food Research Laboratory \(DFRL\), Mysore](#)
8. [Electronics and Radar Development Establishment \(LRDE\), Bangalore](#)
9. [Gas Turbine Research Establishment \(GTRE\), Bangalore](#)
10. [Microwave Tube Research and Development Center \(MTRDC\), Bangalore](#)
11. [Naval Physical and Oceanographic Laboratory \(NPOL\), Cochin](#)

###### **DEHRADUN zone based Labs and respective websites**

12. [Aerial Delivery Research and Development Establishment \(ADRDE\), Agra](#)
13. [Defence Electronics Application Laboratory \(DEAL\), Dehradun](#)
14. [Defence Institute of Bio Energy Research \(DIBER\), Haldwani](#)
15. [Defence Institute of High Altitude Research \(DIHAR\)](#)
16. [Defence Materials and Stores Research and Development Establishment \(DMSRDE\), Kanpur](#)
17. [Defence Research Laboratory \(DRL\), Tejpur](#)
18. [Institute of Technology Management \(ITM\), Mussorie](#)
19. [Instruments Research and Development Establishment \(IRDE\), Dehradun](#)
20. [Snow and Avalanche Study Estt \(SASE\), Chandigarh](#)

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21. [Terminal Ballistics Research Laboratory\( TBRL\),Chandigarh](#)

### **DELHI zone based Labs and respective websites**

- 22. [Center for Fire, Explosive and Environment Safety \(CFEES\),Delhi](#)
- 23. [Defence Institute of Physiology and Allied Sciences \(DIPAS\), Delhi](#)
- 24. [Defence Institute of Psychological Research \(DIPR\), Delhi](#)
- 25. [Defence Laboratory \(DLJ\), Jodhpur](#)
- 26. [Defence Research and Development Establishment \(DRDE\), Gwalior](#)
- 27. [Defence Scientific Information and Documentation Centre \(DESIDOC\), Delhi](#)
- 28. [Defence Terrain Research Laboratory \(DTRL\), Delhi](#)
- 29. [Institute of Nuclear Medicine and Allied Sciences \(INMAS\), Delhi](#)
- 30. [Institute of Systems Studies and Analyses \(ISSA\), Delhi](#)
- 31. [Laser Science and Technology Centre \(LASTEC\), Delhi](#)
- 32. [Recruitment and Assessment Centre, Delhi](#)
- 33. [Scientific Analysis Group \(SAG\), Delhi](#)
- 34. [Solid State Physics Laboratory \(SSPL\), Delhi](#)

### **HYDERABAD zone based Labs and respective websites**

- 35. [Advanced Numerical Research and Analysis Group \(ANURAG\), Hyderabad](#)
- 36. [Defence Electronics Research Laboratory \(DLRL\), Hyderabad](#)
- 37. [Defence Metallurgical Research Laboratory \(DMRL\), Hyderabad](#)
- 38. [Defence Research and Development Laboratory \(DRDL\), Hyderabad](#)
- 39. [Integrated Test Range \(ITR\), Balasore](#)
- 40. [Naval Science and Technological Laboratory \(NSTL\), Vishakapatnam](#)
- 41. [Proof and Experimental Establishment \(PXE\), Balasore](#)
- 42. [Research Center Imarat \(RCI\), Hyderabad](#)

### **PUNE zone based Labs and respective websites**

- 43. [Armament Research and Development Establishment \(ARDE\), Pune](#)
- 44. [Defence Institute of Advanced Technology, \(DIAT\), Deemed University, Pune](#)
- 45. [High Energy Materials Research Laboratory \(HEMRL\), Pune](#)
- 46. [Naval Materials Research Laboratory \(NMRL\), Ambarnath](#)
- 47. [Research and Development Establishment \(RandDE\), Pune](#)
- 48. [Vehicle Research and Development Establishment \(VRDE\), Ahmednagar](#)

**DRDO Bhawan Delhi**

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49. [Budget, Finance and Management](#)
50. [Civil Works and Estates](#)
51. [ER and IPR](#)
52. [Human Resource Development](#)
53. [Industry Interface and Technology Management](#)
54. [International Cooperation](#)
55. [Management Services](#)
56. [Materials Management](#)
57. [Personnel](#)
58. [CEPTAM](#)
59. [Planning and Coordination](#)
60. [Rajbhasha And O and M](#)
61. [Recruitment And Assessment Centre](#)
62. [Vigilance and Security](#)
63. [Public Interface](#)

### Sub sites of DRDO

64. [Right to Information](#)
65. [Aeronautics Research and Development Board](#)
66. [Armament Research Board](#)
67. [Life Sciences Research Board](#)
68. [Naval Research Board](#)
69. [DRDO Mahila Kalyan Munch](#)
70. [Defence Science Forum](#)
71. [DRDO Publications](#)

(iii) Geographical

(a) National level – Number of State covered

16

(b) State/UT level- Number of District covered

Across India

(c) District level- Number of Blocks covered

Please give specific details:-

We have around **71 centers** all over the country. And we cover almost 16 states of country.

(iv) Demographic spread (percentage of population covered)

We cover global presence through our website.

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| S. No. | Duration<br>(Year) | Total No of<br>Visits | International<br>Visits |
|--------|--------------------|-----------------------|-------------------------|
| 1      | 2013               | 90,31,398             | 11,06,346               |
| 2      | 2012               | 49,00,623             | 4,87,122                |
| 3      | 2011               | 34,66,282             | 2,85,968                |
| 4      | 2010               | 24,46,138             | 2,44,858                |

2. Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project):

**3. Scope of Services / Activities Covered** (Level of education services possible, Processes covered, application used, Number/Type of Services, Extent of e-enablement in terms of number of services computerized, Extent to which steps in each service have been ICT– enabled#)

Our Approach to development the skill and employability is –

To become a centre of excellence and Scrutinize, actualize and recognize human potential as

- Provider of Quality deliverables in stipulated functional domains
- Generator of new knowledge in Scientific Performance Measurement
- Trainer to create a seamless community of HRD practitioners in advanced selection techniques

It is realise the vision by

- Adopting highly professional approach in our job execution
- Acquiring state of art capabilities and facilities
- Strengthening our knowledge generation competencies through R&D
- Nurturing total quality management culture
- Establishing strategic linkage with the world's best agencies

We have motto to Committed to Develop Quality Manpower .

### Recruitment

DRDO carries out Centralised Recruitment of all Scientists, DRTC, Admin & Allied Cadre in their feeder grades, in DRDO. All the laboratories / establishments under DRDO report the vacancies, together with the relevant details including the reservation break-up, to DRDO. DRDO is responsible for doing all the recruitment work such as publishing advertisements in News Papers, receipt and scrutiny of applications, preparations of database of applications, preparation of question papers for written test, conduct of the examination and interviews etc. DRDO has evolved its own system and procedure so as to ensure transparency, accountability and fairness at every stage of the process of selection of candidates.

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### Assessment

Every year Assessment of DRTC Personnel of DRDO is centrally organised by CEPTAM. It has Limited Flexible Complementary Scheme and Performance is judged on the basis of Interview and APAR Marks, both having equal weightage. Promotion policy is well defined and results are declared on 31st August every year.

### Training

DRDO was entrusted with the responsibility of facilitating the implementation of the DRDO Training Policy for its employee. DRDO has rolled out training calendar and training brochures for each course, for the year 2012-13. Feedback from immediate heads regarding the impact of training is now obtained to assess effectiveness of training.

#### 4. Strategy Adopted

(i) The details of base line study done,

(ii) Problems identified,

(iii) Roll out/implementation model,

(iv) Communication and dissemination strategy and approach used.):

#### 5. Technology Platform used-

(i) Description,

**DRDO Website is using the following technology :**

- Details of services/Software required/running OS: Red Hat Enterprise Linux Server
- Languages: JSP, PHP and Java Script
- Web/App Server: Apache and Tomcat
- DB Server: MySQL

**Other Than That :**

- State of the Art Board Rooms for Recruitment & Assessment
- Candidates Waiting Area
- Expert's Lounge
- Training Hall
- Knowledge Centre
- Computer Lab
- Recreation Room
- Women Welfare Room

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- MI Room
- Cafeteria

### (ii) Interoperability

### (iii) Security concerns

DRDO website has been constantly monitored on 24x7 basis and has been quarterly audited by CERT-In and CERT-In empanelled agencies for latest vulnerabilities. During development of an application for DRDO website precautions are being taken by skilled programmers and rigorous testing is performed. If any type of vulnerability is found it is fixed in minimum time interval. VAPT tests are performed in quarterly basis for whole DRDO website also mirror servers have been maintained and updated at DESIDOC therefore DRDO website has never been compromised till date.

Security feature and guidelines issued by CERT-In as well as NIC have been followed while developing the website. Site has been deployed at 2 environments, viz., authoring and rendering environment. Authoring environment is used to upload the content that automatically updates the rendering server. Content Management System (CMS) is accessed by different users only through authoring server. Keeping in view of recent cyber attacks on important Government websites, DRDO has incorporated innovative technologies in the website which makes it robust towards malicious attacks. Security mechanism for developing the website application is free from OWASP Top 10 vulnerabilities mentioned below.

- SQL Injection
- Cross site scripting (XSS)
- Broken authentication and session management
- Insecure direct object references
- Cross site request forgery (CSRF)
- Security mis-configuration
- Insecure cryptography storage
- Failure to restrict URL access
- Insufficient transport layer protection
- Invalidated redirects and forwards

#### **Other Security Features**

The below mentioned points has been kept in view for making the website more secure and reliable

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- Enabled authentication for up-loaders with secured protocol
- Authentication needed at different stages
- Compliance with Guidelines for Government of India Websites.
- Password policy implemented for the administrator.
- Captcha implemented to prevent computer code generated execution.
- Session timeout implemented.
- Protection against DoS attack targeting application like locking of the application.
- Audit trail have been enabled on the website, so that the administrator can see the successful and unsuccessful logon, with time. IP attempts on the website.
- Website is able to generated mail Alert and history report in the security report viewable to the administrator containing the Time, IP address of any user.
- Provision for blocking any IP so that identified intruder can be blocked.

**(iv) Any issue with the technology used**

As it is fast moving technology with time. So we have to update our website software as well as hardware up to date.

**(v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)**

**6. Citizen Centricity (Give specific details on the following#)**

**(i) Impact on effort, time and cost incurred by user,**

DRDO website is among most frequently visited website hosted at NIC during most of the time in a year.

The statistics about DRDO Website are mentioned below. Total No of visits per year along with the average visits per day and the International visits have been mentioned on the table which shows the ever increasing popularity of DRDO website around the globe. These statistics have been taken from NIC, India, Webstat wing and Google Analytics.

| S. No. | Duration (Year) | Total No of | International |
|--------|-----------------|-------------|---------------|
|--------|-----------------|-------------|---------------|

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|   |      | Visits    | Visits    |
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the site provides proper convenience to its users in terms of navigation, accessibility and understanding of content. As the information is easy to trace out and most of the time they are reachable within three clicks, it is obviously time saving. Use of CMS has made the website more convenient with ease of content updation and time saving. Tender and other publications are being uploaded according to transparent Govt process. The specifically designed and error free content has shown its work as the DRDO website has most of the time in recent years stood among top of the various Govt website hosted on NIC servers.

RTI related information is also prominently displayed on the home page where a list along with contact details of all the PIOs in various DRDO Labs has been provided clearly. All these features make the DRDO website a useful, informative and user friendly site all together. DRDO website conferred with Webratna 2012 award under outstanding content category.

### (ii) Feedback/grievance redressal mechanism,

The feedback link is prominently placed in the header of DRDO Website home page. Facility of Query/Suggetions/Feedback forms are placed on Home page of DRDO website. It is purely a e mail system as per Government of India Guideline.

Proper provision to collect and analyses the feedback submitted by users is in place on the website. Once we get the feedback from the website user. We have to analyze it and send to concern department. After find the proper solution of user query then we contact the user to tell the solution.

### (iii) Audit Trails,

Regular audits of DRDO website and web applications form CERT-In empanelled agencies

### (iv) Interactive platform for service delivery,

### (v) Stakeholder consultation

## 7. **Efficiency Enhancement** (Give specific details about the following #)

### (i) Volume of transactions processed,

Around 6000 Scientist and 10000 others employee are working in DRDO to do

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different projects to serve the nation and its citizen.

(ii) Coping with transaction volume growth

(iii) Time taken to process transactions,

(iv) Accuracy of output,

Try to keep 100% accuracy in all the employment activity.

(v) Number of delays in service delivery

8. **Ease of transaction** (Give details about method deployed to educate user on how to avail service, security of data shared by user(if applicable), completeness of information provided, Linkages for financial processes (if applicable) etc. #)

9. **Innovation** (Give details on Extent to which the initiative/ project is unique in purpose/goal, compared to other common e-Governance projects in the Health Care, any use of new and emerging technology, impact on number of steps required, identification and removal of bottlenecks/ Irrelevant steps etc. #)

10. **Appropriateness of context and degree of localization** (Give details about degree of localization i.e. local language interface, database support etc. relevance of content, etc. #)

11. **Accessibility** (Give details about how following has been enhanced with automation: user accessibility, transparency in system, single-window resolution, ease of navigation; impact on service response time, number of visits required for accomplishing the task before and after automation etc.#)

DRDO website can be access by anyone, anywhere and anytime for any kind of recruitment and employee assessment because all the processes are online.

12. **User convenience** (Give specific details about the followings #)

(i) Service delivery channels (Web, email, SMS etc.)

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DRDO website is providing interactive platform for students, researchers and academia to exchange their knowledge/suggestions/skill through web portal via email, sms etc.

(ii) Completeness of information provided to the users,

(iii) Accessibility (Time Window),

DRDO website is available on 24X7 basis to its potential and general users with user friendly GUI.

(iv) Distance required to travel to Access Points

(v) Facility for online/offline download and online submission of forms,

DRDO website is providing interactive platform to download and online submission of different forms.

(vi) status tracking

13. **Scalability** (Give details about sufficiency of back end support framework – institutional support, technology support e.g. availability of bandwidth, means adopted for disaster recovery (backup of data/ backup server); etc. #)

The DRDO website is a large website which consists of more than 15000 web pages as a whole. It also including the Hindi version. The website is fully bilingual (English and Hindi) and have been designed and developed using JSP, MySQL, JQuery, Java Script, CSS and HTML. It is hosted on datacenter of NIC Server & in house self maintained server.

### **Implementation Environment & Application Design for New DRDO Website**

- Details of services/Software required/running OS: Red Hat Enterprise Linux Server
- Languages: JSP, PHP and Java Script
- Web/App Server: Apache and Tomcat  
DB Server: MySQL

14. **Sustainability** (Give details about relevance; building; Cost effectiveness, Financial viability of initiative etc. #)

The initiative undertaken have proved it to be robust for 3 years and keeping current performance in view it is likely to maintain its performance in future also. Recently DESIDOC, DRDO has been certified with **ISO 27001certification**; this initiative has made the website

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more reliable and sustainable.

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### **DRDO has its privacy policy for users of the website which says :**

We do not collect personal information for any purpose other than to respond to you (for example, to respond to your queries). If you choose to provide us with personal information like filling out a Contact Us form with an e-mail address or postal address, and submitting it to us through the website, we use that information to respond to your message, and to help you get the information you have requested. Our website never collects information or creates individual profiles for commercial marketing. While you must provide an e-mail address for a localised response to any incoming questions or comments to us, we recommend that you do NOT include any other personal information.

**DRDO website has been constantly monitored on 24x7 basis** and has been quarterly audited by CERT-In and CERT-In empanelled agencies for latest vulnerabilities. During development of an application for DRDO website precautions are being taken by skilled programmers and rigorous testing is performed. If any type of vulnerability is found it is fixed in minimum time interval. VAPT tests are performed in quarterly basis for whole DRDO website also mirror servers have been maintained and updated at DESIDOC therefore DRDO website has never been compromised till date.

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- Security mis-configuration
- Insecure cryptography storage
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15. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

**16. Adaptability Analysis**

(i) Measures to ensure adaptability and scalability

(ii) Measures to ensure replicability

(iii) Restrictions, if any, in replication and or scalability

(iv) Risk Analysis

17. **Result Achieved/ Value Delivered** to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

**(i) To organization**

The DRDO website is providing relevant information to its employees and defence organizations and it is enhancing the transparency & goodwill among its users.

**(ii) To citizen**

This Website has been providing useful and relevant contents to researchers, students, academicians, business houses and common citizens uniformly in a categorized and transparent format. Due to its easy accessibility, clarity of information and relevant contents, it remains one of the most visited Government websites. This is confirmed by the statistics of NIC which places it consistently among

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the top most visited Government websites. . All tenders and procurement documents are also published on the drdo website for industry purpose.

DRDO website is providing the outstanding content for their research and development of many products. It also provides the images and videos of the products. It gives the knowledge of recruitments and training to the students. DRDO publication like DRDO Samachar, Newsletter etc is also there to give knowledge of current events of DRDO.

### **(iii) Other stakeholders**

DRDO website is providing its regular updates to Defence services including Indian Army, Navy and Airforce

18. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/ benefit, change in legal system, rules and regulations

|  |
|--|
|  |
|--|

19. Other distinctive features/ accomplishments of the project:

|    |
|----|
| 1. |
| 2. |
| 3. |

# This is just an indicative list of indicators. Applicant can add on more information based on suitability of the project nominated.