

## Use of IT in ECP for Elections

Election Commission of Pakistan (ECP) is a technology progressive organization – constantly developing and deploying Information and Electoral Technology projects to automate internal processes for officials and to facilitate major stakeholders like voters, political parties, Civil Society Organizations, media and the general public. Technology brings transparency, efficacy and accuracy, developing trust in people for the system. Today's digital world is also an era of infotainment where no entity can survive without the use of technology. From a bird's eye view impact analysis, 7.3 out of 8 billion people in the world are mobile users, which accounts for 91.4% of the world's total population. The introduction of innovative technologies is often based upon a universal myth; "*Think Revolutionary and Act Evolutionary*". However, there is a fundamental difference between Information Technology and Electoral Technology. Generically speaking, IT standards are same everywhere, but Electoral Technology standards vary demographically and geographically, from country to country. Electoral Technology is more complex and extremely challenging as compared to Information Technology being a mission critical task. All in-built standards of IT are part of Electoral Technology, with additional characteristics of basic Election Principles such as transparency, security, privacy, inclusiveness, simplicity, security, universal suffrage, tamper proof, verifiability, auditability, secrecy of ballot, free will of voter, prevent impersonation and intimidation etc. Similarly, "*Election is not only name the winner, but to satisfy the losers that they have lost*".

ECP has accomplished numerous technology driven projects and received National and International acknowledgements, recognitions and Awards:-

### **a. Pilot Project of Electronic Voting Machine (EVM):**

EVMs have a mixed response globally as there are both success and non-success stories. ECP procured 150 customized Electronic Voting Machines (EVMs) and conducted pilot projects in NA-4 Peshawar on 26th October, 2017 and in PP-20 Chakwal on 9th January, 2018. About 100 EVMs were deployed at 100 Polling Booths, parallel to conventional paper based voting system. The Report of the pilot project was prepared and submitted to the Parliament on 31st December, 2017 and the same Report was again submitted to M/o Parliamentary Affairs for placing it before the Parliament for discussions and deliberations on April, 2020 - complying with Section 103 of the Elections Act, 2017.

### **b. Pilot Project of Biometric Verification Machine (BVM):**

ECP procured customized Biometric Verification Machines (BVMs) (17" LCD, GPS, Card reader, Sensor, Digital Pad and Camera) and conducted a pilot project on 17th September, 2017 in NA-120 (Lahore), parallel to conventional paper based voting system. The Report of pilot project was prepared and submitted to the Parliament on 31<sup>st</sup> December, 2017 and the same Report was again submitted to M/o Parliamentary Affairs for placing it before the Parliament for discussion and deliberations on April, 2020 – complying with Section 103 of the Elections Act, 2017. There has been no input from the venerable house till date.

### **c. Overseas Voting Pilots using Internet Voting System:**

ECP also conducted a pilot test of Overseas Voting through Internet Voting System developed by NADRA on 14th October, 2018 Bye-Elections in 35 Constituencies. The Report of the pilot project was prepared and submitted to the Parliament on 4th December, 2018 and the same Report was again submitted to M/o Parliamentary Affairs for placing it before the Parliament for discussion and deliberations in April, 2020 – complying with Section 94 of the Elections Act, 2017.

#### **d. 8300 SMS (ECP's International Award Winning Service):**

ECP introduced World's Pioneer Award winning 8300 SMS for general public in February, 2012, which has been successfully running for more than 11 years now. It's a highly secure and transparent SMS service available for voters 24/7 within the territorial boundaries of the country. Voters' can see his/her voting details instantly by sending 13 digits CNIC at 8300 short code. The London, UK based International Centre for Parliamentary Studies (ICPS) declared the SMS 8300 Service as a pioneer Voters' SMS service in the World and awarded two International Awards in Kuala Lumpur, Malaysia dated December, 2013. So far, more than 250 million mobile users have successfully checked their voting details.

#### **e. Result Management System (RMS):**

Under Section-13 of the Elections Act, an indigenously designed and developed smart software application was developed by IT Wing which has been used in more than 40 Bye-Elections across country successfully wherein Form-47 of the constituencies were prepared before 2:00 a.m. as per Section 13(3) of the Act. Moreover, cascade trainings of more than 2,500 staff were also conducted nationwide so far. The RMS has the capability of working in both the modes, Online and Offline wherein no dependencies are required in case of non-availability of Internet. The said application is more secure and reliable after conduct of its 3<sup>rd</sup> party Cyber Security Audit and rectifications and bug fixing of its few vulnerabilities. Due to strict compliance of Rule 84 (1) of the Election Rules 2017, the administrative and operational processes of carrying results were also exponentially improved resulting in timely declaration of results in R.O offices before 2 a.m.

#### **f. Technical Evaluation Committee:**

The Technical Evaluation Committee (TEC) was constituted including officers of IT Wing/PMU and significant number of meetings have been conducted on following ongoing IT Projects:-

- i) Development of Election Management System (EMS);
- ii) Purchase of IT Equipment for General Elections (2,000 laptops);
- iii) Upgradation of existing about 1,000 laptops (backup plan);
- iv) Data Center Setup in ECP and Network Infrastructure Upgradation;
- v) IT equipment & development for Election Monitoring Control Center;
- vi) Enterprise Level Hosting Solution for RMS/EMS for General Elections;
- vii) Internet connectivity for 859 R.O Offices nationwide for G.E;
- viii) Integrated Office Record Management System (IORMS);
- ix) New Website developed, tested and launched.

#### **g. Online Recruitment System (ORS):**

The Online Recruitment System (ORS) was developed and made available for the public to facilitate individuals for creating their professional profile accounts on ECP's website and to apply for vacant posts available online with ease and transparency. The said service has been operational since April, 2020 and it complies with International Standards, providing end-to-end transparency, verifiability and auditability in the system. So far, more than 250,000 applicants have successfully applied online.

#### **h. Complaint Management System (CMS):**

The online Compliant Management System (CMS) has been operational since September, 2020. This valuable service allows individuals to send complaints and suggestion directly to the ECP. Each complaint is tracked through a ticket generation mechanism and recorded electronically using real-time monitoring method and

properly disposed-off after satisfaction of the complainant. So far, approximately 14,052 complaints have been handled successfully. The system has been designed in such a way that ECP's top management can view the disposal of various complaints in real-time basis.

**i. ECP's Tele Helpline (051-8848888):**

The ECP's Tele Helpline was launched on 7th December, 2020, facilitating the general public to get basic information via pre-recorded bilingual (English and Urdu) audio messages using phone / mobile and it is available 24/7/365days. Similarly, callers can talk to officials during office hours in an interactive manner. More than 170,000 calls have been entertained so far.

**j. Expansion of IT Wing and its Human Resources**

Under the visionary leadership of Hon' CEC, the additional IT related posts have been created and officers are being hired at all the Regional Election Commissioner offices across country. Since everything depends on the technology now days, therefore, the expansion was necessary upto field offices. Similarly, development team have also been hired by establishing Project Management Unit (PMU) on market based salaries to attract highly qualified professionals to support existing IT management and to dedicatedly work on EVM and Overseas Voting and other development projects.

**k. ECP's SMS Service:**

By virtue of this service, the office can send or broadcast SMS with the caption - 'ECP', to officers / officials, group of people, stakeholders, concerned lawyers, beat reporters of media, applicants who have applied for jobs in ECP, etc. Approx. 750,000 SMS have successfully been sent across the country so far.

**l. Use of Optical Mark Recognition (OMR) Technology:**

As per International Standards, the office has introduced a latest paper checking OMR technology. It ensures the highest level of secrecy, transparency, accuracy and speed, making it an exemplary system. Multiple Choice Questions (MCQs) type of assessment is being used to screen out and gauge the professional competence as per global best practices and standards. The OMR technology has successfully been in use since year 2021. More than 75,000 exam papers of different vacant posts have been processed without any error. It provides end-to-end automation. This secure and verifiable system has therefore helped gain the trust and confidence of the general public during recruitment processes and has retained a public understanding based on trust.

**m. Digitization of Delimitation Maps (Scanning, Printing, publishing on Website)**

About 1,710 Maps were printed to support Delimitation Committees, 500 plus maps were digitized and published on website. IT Wing also provided end-to-end full technical support including integrated with Google earth services to Election, Administration, Law Wings in the Court hearings during complete cycle of delimitation processes.

**n. Human Resource Management System (HRMS):**

The HRMS has been developed for digitization of the employees' entire service record and for maintaining it in a secure & centralized manner. It is a fully end-to-end automated system, integrated with biometric attendance system, processes, administrative procedures and streamlined recruitment activities.

**o. Online Scrutiny System:**

The online scrutiny system was introduced as a proactive system, with NADRA's technical assistance, for the speedy verification of nomination papers of contesting candidates via an online, real-time system, securely connected with NADRA, FBR, NAB, SBP, FIA, in order to facilitate Returning Officers during General Elections. This automated digital system helps R.Os to check credentials of contesting candidates while conducting conventional scrutiny simultaneously. The R.O can use this online Scrutiny System and debar any contesting candidate recognized as a tax defaulter, bank defaulter, loan defaulter, dual national, absconder or convicted in the court of law, therefore declaring them ineligible for elections

**p. Video Conferencing System:**

This state-of-the-art, secure and private Video Conferencing System has been installed to connect ECP Secretariat, Islamabad, with all the Provincial Election Commissioners Officers across the country, in order to conduct weekly meetings along with digital briefings, presentations and demonstrations online, in a highly secure and speedy manner. In addition to this, the said system has also been extended to Regional Election Commissioners officers nationwide.

**q. Hi-Tech Data Center:**

Upgradation of In-house Server Room and development of Data Center equipped with cutting-edge technologies is in progress. LOI (Letter of Intent) has already been issued to the firm for its development following all international industry standards.

**r. Social Media and Public Outreach:**

ECP is actively using social media platforms (Twitter, Facebook, YouTube) for the dissemination of vital information for the general public since March, 2020 - having reached over 98K followers on Twitter and over 16,000 followers on Facebook with the blue tick official tag.

**s. Computerized Electoral Rolls System (CERS):**

The Computerized Electoral Rolls System (CERS) was established in the year 2012, integrated with NADRA's Civil Registry Database. The purpose of the CERS was to implement the principle of "One-CNIC One-Vote" which states that there should not be any duplication of voting records as per the international standards of Rational Database Management System (RDBMS). The message content of SMS 8300 Service is also generated through the CERS software. Its real-time reports are published on ECP's website regularly with colorful charts and graphs, categorized according to province, gender, age, and district.

The CERS Application is deployed over a secure dedicated Private Network (PN) with High Speed Fiber Optics in all Provincial and Regional Offices across the country. The process for upgradation of Fiber Optics network has begun up-to District Offices as well. Moreover, the London based International Centre for Parliamentary Studies (ICPS) also acknowledged the Pakistan's Computerized Electoral Rolls System (CERS) with an International Award in Cape Town, South Africa dated December, 2014.