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| **Institutional Capacity Building of National Academy for Planning and Development Project (2nd Revised)**  National Academy for Planning and Development (NAPD)  Ministry of Planning  3/A, Nilkhet, Dhaka  [www.napd.gov.bd](http://www.napd.gov.bd) |
| Online Research & Publication Management System (RPMS): Functional Specifications |
| Integrated solution of Research and Publication activities of NAPD |
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# Abstract:

This spec describes the NAPD Online Research & Publication Management System (RPMS) to implement the version 1.00. This spec forms a basic framework for the design of the web based application software. National Academy for Planning & Development is now using traditional method to manage research, Development Review, NAPD BARTA and Conference management. This old system is tedious to complete the task (not automatic software based) on time and more over it is not helping NAPD to be presence at online arena and branding. This application software will help to increase NAPD branding and will provide prompt process. The impact of this application software will help prompt process, publication and readable from whole world.

# Problem description:

Research and Publication process of NAPD can be grouped into three broad categories.

**1. Research Management-**

1. Manual system research proposal call
2. Printing uses more papers
3. Evaluation system manually
4. Research report manual
5. Time consuming process
6. **Publication Management (**NAPD Barta, Annual Report, Training Booklet, Research Booklet**)**
7. Offline hence internationally not readable
8. Traditional information collection
9. Archive for future use is complex
10. Finding anything from old one is time consuming

**3. Conference & Journal Management-**

1. Call for paper not possible internationally
2. Process system slow
3. Review system will not speedy
4. Total process system takes more time. Annually 1 publication.
5. Published article not widely readable. Internationally absent
6. Reference system less used.

# Introduction:

National Academy for Planning and Development (NAPD) is a national training and research institution developing human resource since 1981 in the field of development planning and project management. Apart from this, for the past few years, Academy has been conducting various ICT training courses in order to produce officers capable of ICT and proficient in implementing the ICT project to meet the challenges of globalization and implementation of Digital Bangladesh.

Training is the main function of NAPD. Its many sub-functions serve as a supportive background for the implementation of training programs. In order to function optimally, the NAPD must have the right tools and resources in place. Since 2014, NAPD has been using some software modules to support training. These are Training Management System (TMS), Library Management System, Dormitory Management System, Store Management System etc. NPAD has already developed ‘NAPD‘ Apps which is now floated and is going to increase its uses day by day.

Since 2013, National Academy for Planning & Development opened a new department named as **‘Research Department’.** Every year 2-6 researches have been conducting for the purpose of helping policy development in Bangladesh. **Development Review** is very popular publication of this department. **NAPD BARTA** is also popular bi-annual publication of the department. National Academy for Planning & Development is going to open new avenue i.e., international conference to branding and start joint collaboration among abroad. Research department all functions are in traditional process. All of the functions of the department can go online to be more effective and contribute to make digital Bangladesh.

After using the NAPD TMS software module, for the time being some new requirements have been generated. On the other hand in order to develop a mobile app integrated with this TMS, some renovation of the TMS have to be done. So we have to accomplish two tasks to meet our requirements:

# Scope of the work:

**Module – 1: Development “Research Management System”**

**Module – 2: Development “Publication Management System”**(Berta, Annual Report, Training Booklet and Research Booklet **)**

**Module – 3: Development “Journal & Conference Management System”**(Journal and Conference)

# Specific Functional Requirements:

**Module – 1: Research Management System**

1. Invitation for research proposal with circular/attachment publication and this invitation proposal can be published / linked in the website from the system.
2. Submission of research proposal by the researchers (required document will be attached).   
   (A form can be used to submit proposal by any researcher )
3. Receiving the research proposal from the researcher in the system and manageable with sorting and searching feature.
4. Maintain an evaluator database in the system with selection feature of research.
5. Evaluator can submit evaluation report with recommendation.
6. After evaluation the selected researchers will get NOA (Notification of Awarding).
7. Circulation of date and criteria’s for making presentation of inception report.
8. Informing the researchers for incorporating the recommendations given by the committee members to the final research report.
9. Evaluators (user who will evaluate the reports) can be notified (email / SMS)
10. Circulating date of the final presentation and receiving the final report and presentation well before the date of final presentation.
11. Uploading the research report on the website of NAPD (with sharing feature like share with facebook, other similar platform).
12. Sending the final research report to stakeholder.

**Module – 2: Publication Management System**

(NAPD Barta, Annual Report, Training Booklet, Research Booklet)

1. Asking information from every department of NAPD in the prescribed format for the publications (Notice, News, Alert feature)
2. Sending the required information by the different department of NAPD
3. Submitting the information of the current program / event with photograph
4. Incorporating summarizing and evaluating the latest information (Editor will edit, add or delete and take decision on items to be published or not)
5. A process for final review and approval from authority through the linkage of e-nothi
6. Uploading the final NAPD Publication (Barta, Annual Report, Training Booklet, Research Booklet) on the website of NAPD within specific time frames (with sharing feature like share with facebook, other similar platform).

**Module – 3: Journal and Conference Management System**

**Journal**

1. Invitation (circulation of advertisement) for articles to the Government/ Non-Government/ International Organization through e-nothi on the selected topics.
2. Receiving those relevant articles and required information.
3. Uploading the selected topics for articles by the authors.
4. Circulation of final date for submitting the articles to NAPD
5. Receiving those articles from the senders (submit proposal by fillip an online form with attachment).
6. Creating a relevant database for reviewer.
7. Sender can modify or update the submitted article before the submission end date and will be notify when it goes to reviewer.
8. Sending the reviewers for reviewing the articles primarily selected by the committee of NAPD with notification.
9. Reviewers will send the articles after reviewing within the specified time frame and they have provision to edit the articles and original will be kept unchanged by the research division.
10. Receiving those articles from the reviewers.
11. After evaluation of reviewers recommendations by the committee of NAPD, the writers of the articles will be informed to incorporate those recommendations.
12. The writers will send the final articles to NAPD within specific date.
13. A process for final review and approval from authority
14. NAPD will receive those final articles, can print and publish on the website (with sharing feature like share with facebook, other similar platform).

**Conference**

1. Creating organizational database.
2. Call for abstract and publish notice with sharing feature (Facebook, other similar platform)
3. Registration/Confirmation of Authors of abstract
4. Selection of abstract
5. Call for Full papers of the selected abstract
6. Publication of conference proceedings
7. Conference information (Budget, Refreshment Facility, Management involved, raised issues and outcome/findings, etc will be kept with each conference so that they can be used in the next conference)
8. Manage conference sessions and evaluation result of the sessions.
9. Uploading report on the website of NAPD (with sharing feature like share with facebook, other similar platform).

# Supported Platform:

Research & Publication Management System (RPMS) is online based application software. It will be user friendly and scalable. Must support windows base operating system environment as well as Linux base operating system? Software must run in any web server (Apache or IIS).

# Development Tools:

* + Front-end script: PHP/ASP.NET C#, Java, JSP & related programming
  + Framework: Codeigniter/ ASP.NET MVC / Java Web Frameworks - Spring MVC/ JSF – (JavaServer Faces)/ Java Struts/ Hibernate ORM
  + Database: MySQL/ Oracle
  + Interface Design:
  + HTML, Javascript, ajax and jquery-ui
  + Latest jquery  
    mootools
  + Font family: Bangla unicode font support
  + Javascript and Jquery Library:
  + ckeditor (For custom text input field with text editor)
  + Date picker: jquery-ui-1.11.2
  + jsapi (To generate graphical report like bar chart, pie chart, line chart etc )
  + jscolor and farbtastic colorpicker
  + Jquery add-gallery
  + ajaxfileupload
  + Customize Helper:
  + captcha\_helper
  + num2word\_helper
  + pdfexport\_helper
  + tmis\_helper

# Running Environment:

* + Web server: Apache version - 2.2 or 2.2+ on Windows or Linux platform / IIS on Windows
  + PHP versions: 5 or 5+ / ASP.NET MVC/ JDK Latest
  + MySQL version: 5 or 5+/ Oracle 11g
  + Support all browsers (Chrome, Internet Explorer, Firefox and Safari)

# External API/Service Integration:

* + Payment Gateway:
  + SSL COMMERZ payment gateway, bKash and Rocket payment gateway will be used to receive online payment.

# Security Control:

* 1. Group Wise Access Permission Manage
  2. Encrypted Password with Strong Password Policy
  3. User Access to lock access / open lock

# Multi lingual Support:

English & Bangla

# Next Development Area:

Scalable application software

# Conclusion:

This web based application software will bring tremendous impact on branding, process improvement, and online presence of National Academy for Planning & Development.

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| মোঃ নূরুল আমিন  সহকারী প্রোগ্রামার  এনএপিডি  ও  সদস্য, স্পেসিফিকেশন কমিটি | মোঃ আহসান হাবীব  প্রোগ্রামার  পরিকল্পনা বিভাগ  ও  সদস্য, স্পেসিফিকেশন কমিটি | তৌহিদুর রহমান চৌধুরী  উপ-পরিচালক (গবেষণা ও প্রকাশনা)  এনএপিডি  ও  সদস্য, স্পেসিফিকেশন কমিটি | মোঃ মঈনুল হাসান চৌধুরী  প্রশিক্ষক  এনএপিডি  ও  সদস্য, স্পেসিফিকেশন কমিটি |
| জিয়াউদ্দিন আহমেদ  সহকারী নিয়ন্ত্রক (আইটি সিকিউরিটি)  তথ্য ও যোগাযোগ প্রযুক্তি বিভাগ  ও  সদস্য, স্পেসিফিকেশন কমিটি | মোহাম্মদ জিয়াউল ইসলাম  ন্যাশনাল কনসালটেন্ট  ই-লার্নিং, এটুআই  ও  সদস্য, স্পেসিফিকেশন কমিটি | মোঃ হাসান তারিক  পরিচালক (গবেষণা ও প্রকাশনা)  এনএপিডি  ও  সদস্য, স্পেসিফিকেশন কমিটি | প্রকৌঃ মোঃ আব্দুর রশিদ  পরিচালক (প্রশাসন ও অর্থ)  এনএপিডি  ও  সদস্য, স্পেসিফিকেশন কমিটি |
|  |  | এ এ এম নছিহুল কামাল এনডিসি  অতিরিক্ত মহাপরিচাক  এনএপিডি  ও  আহ্বায়ক, স্পেসিফিকেশন কমিটি | |