

**Works and Accounts
Management Information System
(WAMIS)**

Mobile Application

mWAMIS 2.0

Version:- 0.0.1



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Project Title: Implementation of Works and Accounts Management Information System (WAMIS)

User Department: All Engineering Departments

Purpose: Monitoring work progress through geo tagging photograph

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SECTION 1

1.1. Introduction

Works and Accounts Management Information System (WAMIS) lays special emphasis on the end-to-end monitoring of civil construction works undertaken by various government departments under the Government of Odisha; It is therefore to ensure that works taken up under various programs /schemes meet the requisite standards and to assess the actual progress of individual works, a mobile based application has been developed. This application enables the user to capture geo-tagged photographs of an on-going work on the construction site. Photographs thus taken through this mobile- based app can later be viewed through a viewer application deployed as a part of WAMIS along with other details about the concerned work.

1.2. Protocols for Uploading of Photo graphs

Integrated feature of Mobile Handset: -

Feature	Minimum Requirement	Notes
Memory	Card slot - microSD, 2GB included	Application needs minimum RAM to Run.
	Internal - 1 GB ROM, 512 MB RAM	
Display	Type - TFT capacitive touch screen, 65K colors	The current Android interface targets a touch-based HVGA resolution display with a touch-interface no smaller than 4 inches in size. However, smaller displays will suffice for initial porting.
	Size - 240 x 320 pixels, 3.3 inches (~121 ppi pixel density) - TouchWiz v3.0 UI	
Camera	Primary - 5 MP, 2560x1920 pixels, autofocus	Recommended 5MP for better quality
	Features - Geo-tagging	
	Video - Yes, QVGA@15fps	

	Secondary – Not Required	
GPRS	3G	4G recommended.
AGPS	Required	Required by application
OS	Android 7	Android 9 or later recommended.

It is suggested that same make handset to be used by all users. (To reduce compatible issue)

Details required for taking Photograph:

Work id should be available in WAMIS by filling proposal work details.

User name and password should be available with the user.

Works need to be mapped with the user id.

The bill needs to be available with Section officer but not finalized from the Section officer's login.

When and how many photos to be taken?

User can upload "n" numbers of photos as required in each work for which payment is made during that period. However, the individual department should decide on frequency and number of photos based on the nature of the work.

1.3. Installation Steps

For installing the mobile-based work monitoring system on your mobile, follow the steps given below.

- Open web application using mobile browser. <https://wamis-odisha.gov.in/wamis/apk/wamis.apk>
- Download file "wamis.apk".
- Go to the directory where the "wamis.apk" is downloaded.

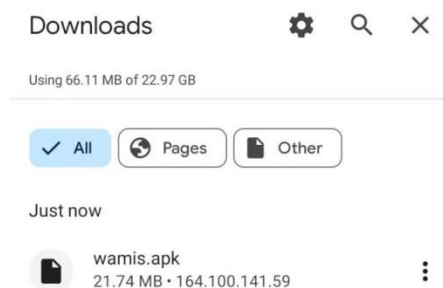


Fig 1.2.1

c. Click on Install button (Fig 1.2.2).

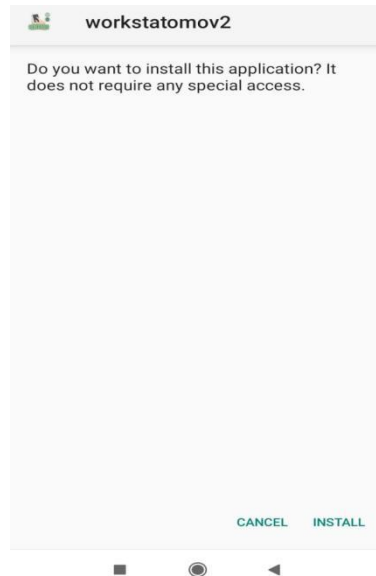


Fig 1.2.2

d. You can see the progress bar for installation; wait till operation is in progress (Fig 1.2.3)

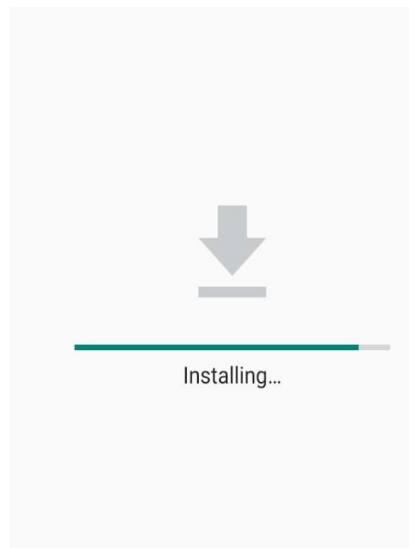


Fig 1.2.3

- e. After getting message as “Application installed”, you can open the application using “Open” button.
- f. For using the application, click on the “mWAMIS” icon located on the home screen of your mobile, which would take you to the home screen of mobile-based works monitoring system.

1.4. Login

First click on the mWAMIS2.0 icon located on the home screen of your mobile, which would take you to the login screen of mobile-based monitoring system.

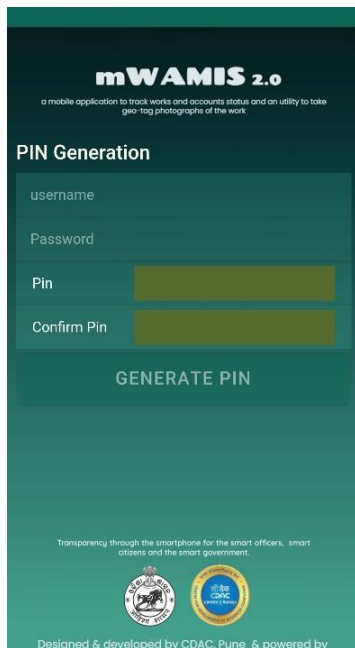


Fig. 1.3.1

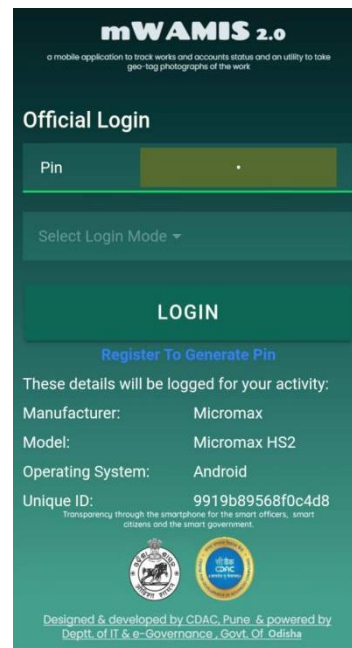


Fig. 1.3.2

This screen allows user to login into application. To login, please follow these instructions (Refer Fig. 1.3.1 & Fig. 1.3.2).

- Type in your User name. The User name is not case sensitive i.e., abc is same as ABC or AbC or abC.
- Type in your Password. The Password is case sensitive.
- Enter PIN and confirm the PIN entered.
- Then the user is redirected to official login page where user enters the PIN generated.
- Select the mode in which user want to login i.e., online/offline. Default mode is Online.
- Click on Login button, which would take user to the Main Menu.

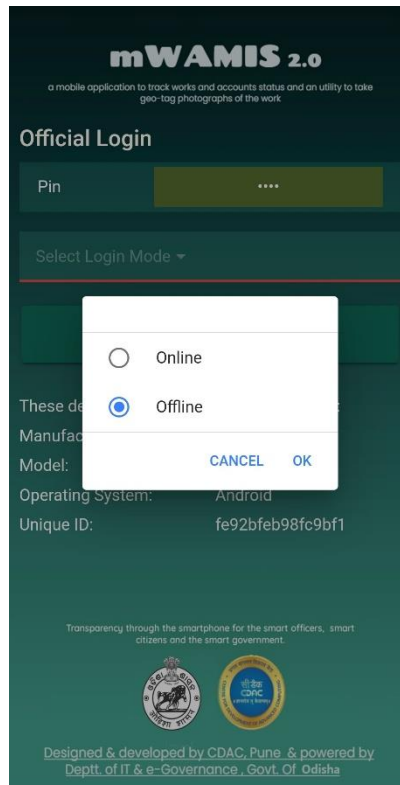


Fig. 1.3.3

1.4.1 Offline Mode

If internet connectivity is not available, user can login using offline mode. Where user's GPS should be enabled. User now gets an alert message of location (**Refer Fig.1.4.0**).

- a. User captures the photo by clicking the icon right bottom of the screen.
- b. User then manually enters the work number and bill number (**Refer Fig. 1.4.0.1**)
- c. User clicks on the upload icon to upload photos.

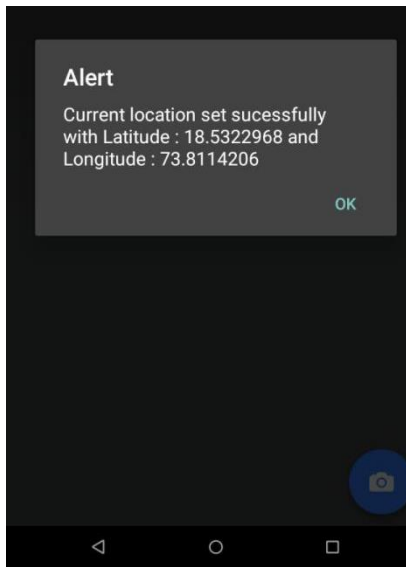


Fig. 1.4.0

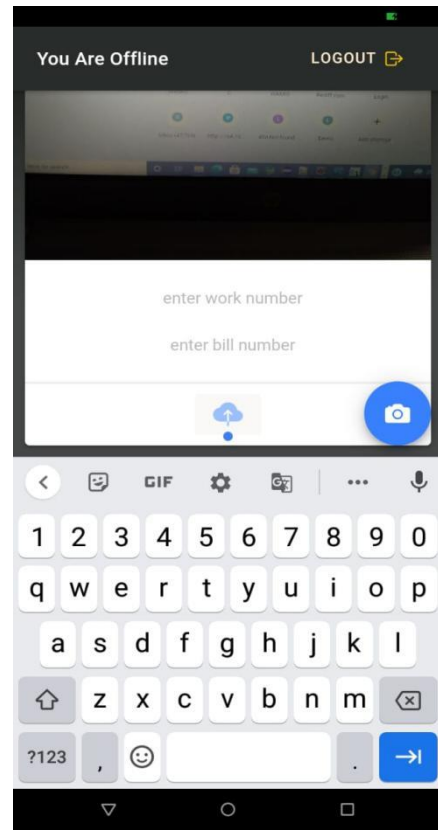


Fig. 1.4.0.1

After capturing the images user needs to add the work Id and bill number which then gets saved at "Not Uploaded" section in home screen. (Refer Fig. 1.4.0.1).

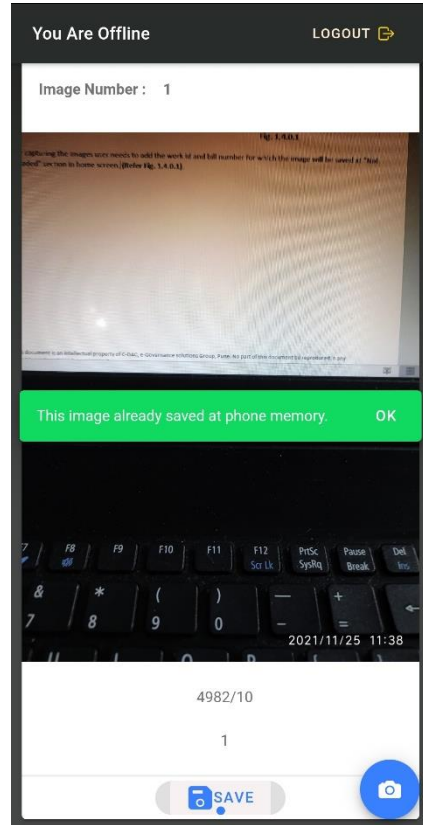
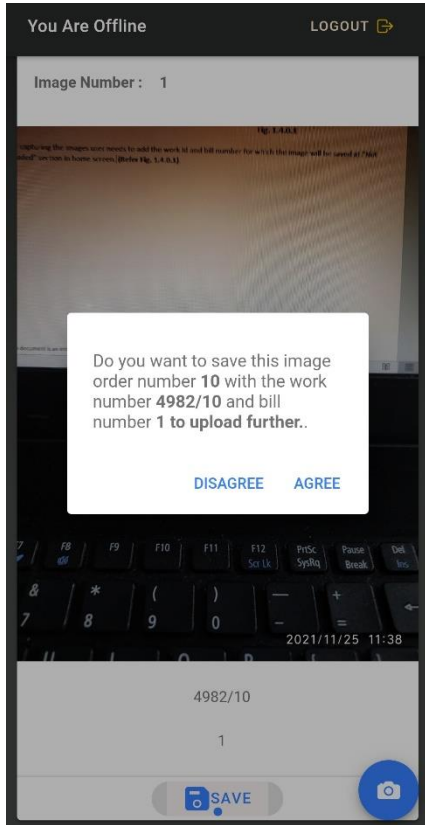


Fig. 14.0.3

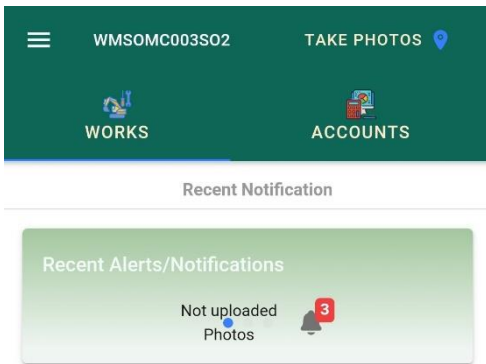


Fig.14.0.4

User saves the image for the entered work Id & bill no. (Refer Fig. 1.4.0.2), with a successful message (Refer Fig. 1.4.0.3). Which further gets saved in “Not Uploaded” section in notification/alert of Home Screen (Refer Fig. 1.4.0.4).

1.4.2 Online Mode

If User logins selecting online mode which allows user to upload photos in the presence of Internet connectivity.

1.4.2.1 Main Menu

This section covers operational flow under online. The offline mode doesn't contain submit option for uploading images whereas all other operational flow is same in both the modes.

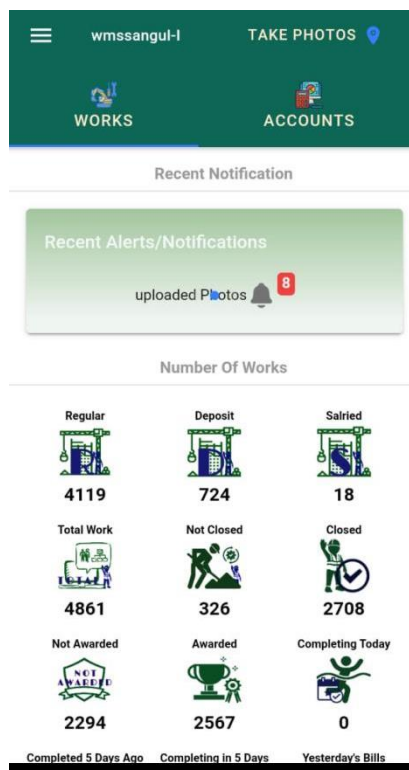


Fig. 1.4.1

This is the main menu screen for the user to access.

- It shows a detailed panel of works.
- Recent alerts and notifications of uploaded photos and its status.
- User selects on **“TAKE PHOTOS”** to proceed further.

1.4.3 Location confirmation: -

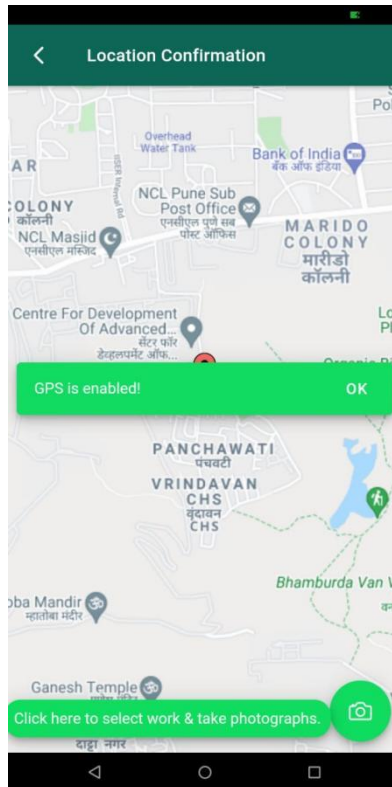


Fig 1.4.1.1

This screen provides user to confirm the location of work site.

- User's **GPS is enabled** notification pops up when GPS is on.
- User now selects the icon at the bottom of the screen to select work and upload photos (**Refer Fig 1.4.1.1**).

1.5.2 Selecting Work with Bill or Without Bill: -

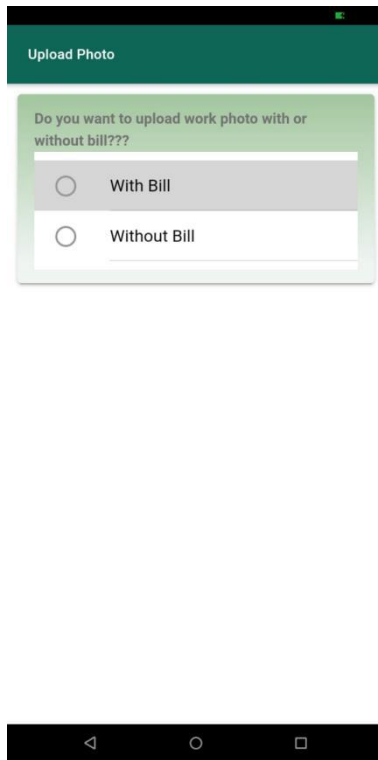


Fig 1.4.1.2



Fig 1.4.1.3

This screen provides user to select work **with bill** or **without bill** (Refer Fig. 1.4.1.2). When user selects **with bill** the next screen shows the list of work details that have bills already prepared but not finalized by sectional officer. In case if user selects **without bill**, then the work proposals which are already created and bill has not been prepared those lists will be visible. (Refer Fig. No. 1.4.1.3).

1.4.4 Take Photos

After user selects a work with bill, the next screen comes with details of Bill number, Bill date of work selected. User clicks on the icon at the right bottom in the screen to capture photos (**Refer Fig.1.4.1.4**).



Fig. 1.4.1.4

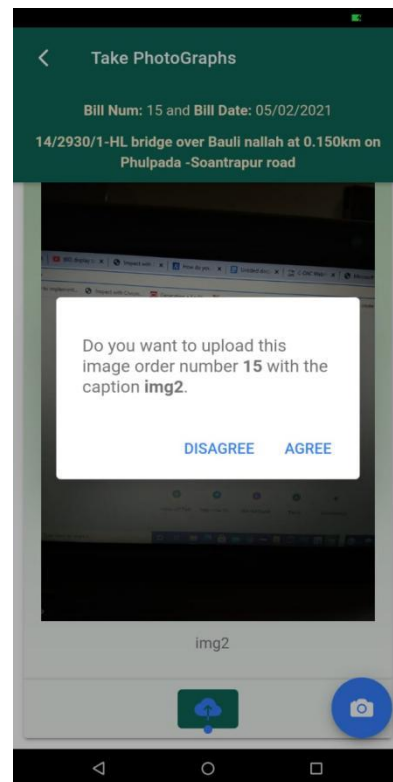


Fig. 1.4.1.5

- User clicks the photo required for a specific work.
- User can edit the caption of the image which requires to be uploaded.
- Then a message would pop up to agree/disagree for caption (**Refer Fig. 1.4.1.5**).
- Then by clicking upload button icon images gets uploaded.

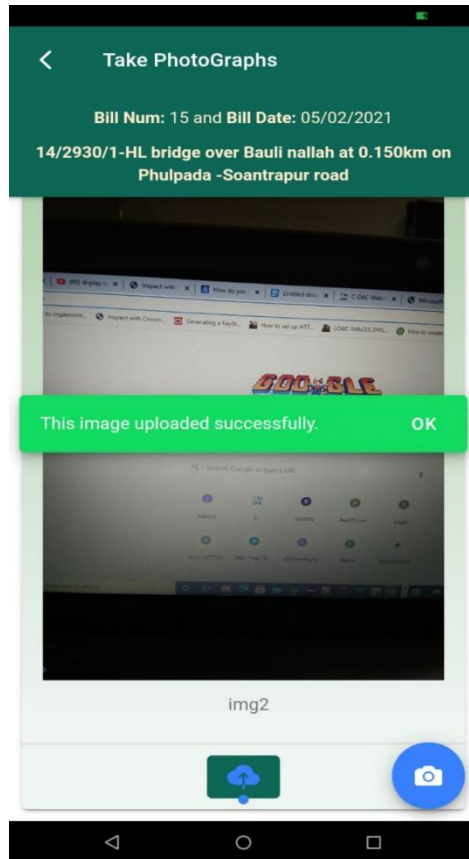


Fig. 1.4.1.6

After clicking on upload icon, images get uploaded with a message showing images uploaded successfully (Refer fig. 1.4.1.6).

If user selects **without Bill** then the process is same as **with bill** procedure till capturing images that which has been explained previously while following **with bill** procedure. Only difference in **with bill & without bill** is that it allows user to upload image directly in **with bill** but in **without bill** it allows user to save the image by putting captions mandatorily for reference of those work whose bill has not been prepared, once bill is prepared sectional officer updates the saved image with Bill No. and uploads the same for that work id & bill.

NOTE: - Based on resolution of the camera and network speed, time taken for uploading 15 or more photographs may vary from 3 min to 6 min. It is recommended to upload the photographs using 3G network.

1.5. Error Messages

This section explains the errors and warnings with corrective action to be taken by the user.

Sr. No.	Error/Warning Message	Reason	Corrective Action
1.	Confirm Pin is not same	The entered pin is not matched with confirm pin while generating the pin.	Match both the pin and confirm pin.
2.	Sorry wrong credentials	Either the username or password is incorrect.	Try with the correct username and password once again.
3.	Server down or some network issue.	a. Server is inaccessible b. Internet is disconnected	Check Internet connectivity in your mobile. If disconnected, go to settings & connect it. Otherwise report to concern office
4.	Sorry you have entered wrong PIN.	a) Typing error b) Forgot the generated pin	a) Type the correct pin and try to login again. b) In case if one forgots the pin, the same can be generated again by clicking on the link "Register to Generate Pin".
5.	GPS is not enabled, Please go to the setting of your phone and enable it.	Location (GPS) not enabled.	Enable the GPS. Wait for some time to get GPS value, confirm once & try again.
6.	Network disconnected or poor connection detected.	Internet is disconnected/Poor Internet connection.	Check Internet connectivity in your mobile. If disconnected, go to settings & connect it.
7.	This billnumber is not present for this worknumber in WAMIS system.	a) Wrong bill number entered B) Billnumber not prepared for the entered work.	a) Enter the correct bill number. b) Prepare the bill for the worknumber entered.