



DigiLocker

Your documents anytime, anywhere

National Academic Depository

Version 1.0

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A Digital India Initiative
National e-Governance Division.
Ministry of Electronics and Information Technology.

Revision History

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1.0	27/07/2020	Released draft version.

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National Academic Depository

Background

Indian Education system is a large and growing system with approximately 55 school boards, 359 state universities, 123 deemed universities, 47 central universities and 260 private universities. Apart from these, there are 107 other institutions such as IISc/IITs/IIMs/NITs/IISERs/IIITs/NITIE and 12 other centrally funded institutions. These institutions issue academic awards to students including degrees, diplomas and certificates along with mark sheets and evaluation reports. Apart from these, institutions under various Ministries/Departments and other skill based institutions also dispense certificates, diplomas and advanced diploma.

Those who are entering into employment or pursuing higher studies require a credible, authentic and convenient mechanism for access, retrieval and validation of such academic awards. Academic records maintained in paper form are susceptible to hazards such as spoilage and forgery. Students often face difficulties in obtaining copies of their certificates/mark-sheets whenever they are lost or destroyed. Maintaining academic awards in a digital depository would enable educational institutions, students and employers online access/retrieval/verification of digitised academic awards and shall eliminate fraudulent practices such as forging of certificates and mark-sheets.

Maintaining academic awards in an electronic depository would provide benefit to educational institutions, students and employers by enabling online access of academic awards.

The Union Cabinet has approved establishing a digital depository of academic awards to be known as National Academic Depository (NAD) on the pattern of securities depository in its meeting held on 27th October, 2016. The National Academic Depository aims at ensuring a credible and convenient mechanism for online lodging, verification and authentication of the academic awards issued by various educational institutions.

Soon after the launch of NAD by the Hon'ble president of India on 9th July, 2017 the Government in exercise of powers conferred under section 20(1) of University Grants Commission Act, 1956 has designated University Grants Commission (UGC) as an authorised body to enter into a tripartite agreement with NSDL Database Management Limited (NDML) and CDCL ventures Limited (CVL) on 22.11.2016 for a period of three

years. The period of Tripartite agreement signed between UDG, CVL and NDML ended on 22.11.2019 and further it has been decided that the NAD Scheme will be implemented by DigiLocker, an entity owned by Ministry of Electronics and Information Technology. A notification F.No.8-2/2019-U.Policy dated 18.03.2020 was released by Ministry of Human Resource Development regarding implementation of NAD scheme through DigiLocker.

The purpose of this document is to provide an introduction to NAD using DigiLocker and introduce the process to adopt NAD by academic institutions, verifier organizations and students. The DigiLocker NAD can be accessed at <https://nad.digitallocker.gov.in/>

What is DigiLocker?

DigiLocker is a flagship initiative of Ministry of Electronics & IT (MeitY) under Digital India programme. DigiLocker aims at 'Digital Empowerment' of citizen by providing access to authentic digital documents to citizen's digital document wallet. The issued documents in DigiLocker system are deemed to be at par with original physical documents as per Rule 9A of the Information Technology (Preservation and Retention of Information by Intermediaries providing Digital Locker facilities) Rules, 2016 notified on February 8, 2017 vide G.S.R. 711(E). DigiLocker aims at promoting Paperless Governance by issuing authentic digital documents issued by various issuers to citizens' locker account. DigiLocker system is hosted in NIC National Data Centre in Delhi and Pune. As of today majority of State/UT Education Boards are providing digital educational certificates from DigiLocker. Additionally other agencies such as NIOS, NSDC and NCVT are also providing digital skills certificates via DigiLocker.

NAD Governance Structure

Ministry of Human Resource Development (MHRD) is the parent ministry of NAD. MHRD has appointed UGC as nodal agency for implementation of NAD scheme through DigiLocker. DigiLocker is a flagship project of Ministry of Electronics and Information Technology (MeitY), Government of India and is executed by National e-Governance Division (NeGD).

NAD Ecosystem

The NAD ecosystem comprises of the Academic Institutions, Students, Verifying Partners, NAD Repository, DigiLocker application. The Verifying Partners (Employers, Banks, VISA

Consulates, other Academic Institutions etc.) can easily verify academic awards of the Students through the system by obtaining the consent of the student.

Academic Institutions (AIs)

The Academic Institutions will issue digital Awards to students through National Academic Depository. The Institution issuing the awards is the custodian of these awards and manages the lifecycle of the award. Universities/State Education Boards/Autonomous bodies and Institutions are collectively referred as Academic Institutions.

Students

Students/Citizens are the beneficiaries of this scheme who can view, access and share their digital academic awards with other Academic Institution or potential employers.

Verifiers

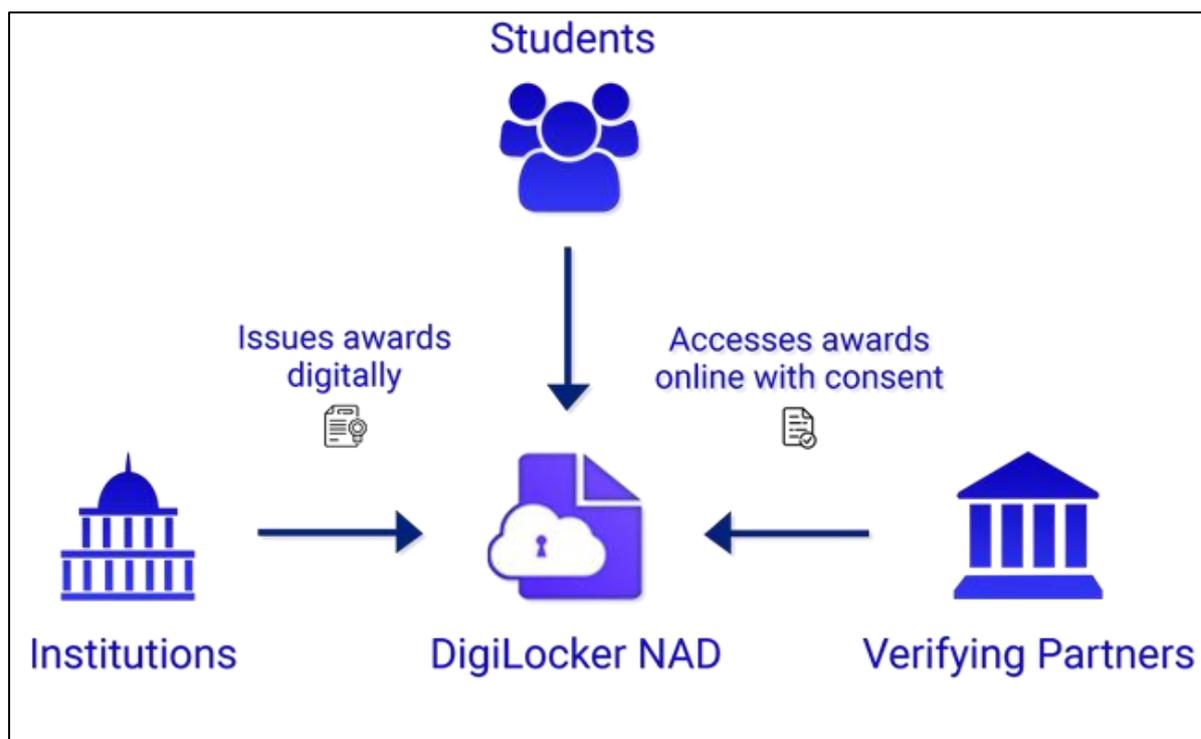
A student may share his/her academic certificates with a potential employer while seeking a job or with a bank as a proof of date of birth or with an Academic Institution for further studies. Such third party entities such as employer, banks, visa consulates and other academic institutions that indulge in verification of the academic certificates submitted to them by students are termed as verifiers. The Verifiers can verify students' academic credentials with students' consent.

NAD Repository

DigiLocker provides a secure dedicated repository service to AIs to host their awards data and is available at <https://nad.digitallocker.gov.in/> NAD portal provides an easy and intuitive workflow to upload and publish the academic records from this repository. An authorized person from AI can upload, publish and maintain the academic awards of the AI in this repository. This repository service is free of charge.

DigiLocker

DigiLocker web/mobile application acts as the student facing interface of NAD. Students can access their digital academic certificates hosted on NAD through their account on DigiLocker. Students can also share their certificates with other DigiLocker partner organizations while availing their services. Along with academic certificates, students can also access their other important documents such as Aadhaar, driving license, vehicle registration, PAN etc from their DigiLocker account. DigiLocker is continuously adding Central/State/Private issuer organizations to its ecosystem. Thus a single account provides access to a gamut of digital certificates along with academic certificates. You can find more information about DigiLocker on its website <https://digilocker.gov.in>



Academic Institutions

Registration on NAD Portal

The AIs can register on NAD online by visiting NAD portal. Registration is a one-time process and involves following steps:

- i. The authorized person of the AI visits following this link on NAD portal - <https://nad.digitallocker.gov.in/login>
- ii. NAD uses the basic information of the authorized person from his/her DigiLocker account. Hence the authorized person needs to have a DigiLocker account as a prerequisite. If the DigiLocker account does not exist, it is created as a part of the registration process. DigiLocker account can be created with Aadhaar eKYC with OTP verification or with mobile number, name, date of birth and gender (without Aadhaar). If the DigiLocker account already exists, the person can login to his/her account.
- iii. Upon successful login, NAD asks for basic information about the AI such as name, address and website. The authorized person first selects the name of the AI from a list of UGC approved AIs and Education Boards and then fills in the other details. If the name of your AI is missing from the list, please contact us using the contact information provided below and the NAD team will help to get your AI listed.

- iv. Next, the registration process will ask for the name, designation, mobile and email of the account owner. The account owner is the authorized individual in a supervisory role in the AI and will act as a Nodal officer for NAD. This individual will be contacted using the details provided for an offline verification.
- v. In the next step, the registration process will ask for the name, designation, mobile and email of the authorized person. The authorized person is an individual who operates the NAD account of the AI and performs the tasks such as uploading the award data and publishing it.
- vi. As a final step, NAD provides an agreement (click wrap) screen which the AIs will read and accept. After accepting the agreement the registration application is complete. The user also receives a welcome email with the agreement for his/her record and details required to upload academic record in NAD.
- vii. The NAD team will verify the application details by contacting the account owner and the UGC. Upon successful verification, your account will be activated. You will receive an email on the email address provided by you.

Publishing Academic Records on NAD

Format of the Data

One of the primary objectives of NAD is to eliminate delays in the verification of academic records due to manual verification. Hence the academic records on NAD must be available in machine readable format. AIs can upload only digitized academic records on NAD. Scanned copies of academic records cannot be uploaded to NAD. NAD in coordination with UGC has prescribed standard fields and formats for uploading academic records on NAD. The data has three main components – the information of the AI and the course undertaken, the information of academic performance and the information of the student. The information of the student is used to link the academic award to student's DigiLocker account and comprises of following fields:

- i. Name
- ii. Date of birth
- iii. Gender
- iv. Mobile Number
- v. Email Address
- vi. Aadhaar Number
- vii. DigiLocker Id

It is not required that the academic awards are seeded with Aadhaar to be published on NAD, but Aadhaar seeded academic record can be uniquely mapped to a student and thus increases the confidence of mapping. Publishing academic awards on NAD entails making the awards data available to students through DigiLocker and to the third party verifiers for verification from NAD. AIs have two choices to host this data:

- i. Host the awards data in Repository Owned by AI
- ii. Host the awards data in NAD Repository

Hosting the academic records in Repository Owned by AI

This approach allows the AI to store its data in a repository/database owned by the AI and link it to NAD using a secure API layer as prescribed by NAD. This approach can be opted by the AIs that have the requisite IT infrastructure such as award repository/database, server(s) and the capability to build the APIs. In this case, the awards data does not reside within NAD system and always comes from the AI's repository/database. Hence, NAD is not the custodian of these digital awards, the AI issuing the awards is the custodian of the data and manages its lifecycle. When an award is accessed by a student or a verifier, it is fetched from the AI's repository using the APIs and provided to the student or the verifier. The AIs can refer to the API specification at <https://partners.digitallocker.gov.in/issure-api.php> for technical details.

When the data is hosted in AI's repository and is linked to NAD through an API, the academic records must be provided in machine readable XML format along with a printable PDF format. The XML structure for the academic records is specified in Digital Locker XML Certificate Formats at <https://partners.digitallocker.gov.in/issure-api.php> The AIs design the printable PDF format of the academic record as per their choice.

Hosting the academic records in NAD Repository

The AIs that do not have the requisite IT infrastructure to host the academic awards in their own repositories can opt to store the awards data in NAD repository. NAD provides a secure dedicated repository to AIs to host their awards data. NAD portal provides an easy and intuitive workflow to upload and publish the academic awards data. This process involves following steps:

- i. Uploading the data to NAD repository
- ii. Verification of data
- iii. Selecting the template for academic certificates
- iv. Publishing the data

v. Correction/Deletion of academic awards

i. **Uploading the data to NAD repository:** The authorized user from an AI as created during registration process has access to the NAD repository service by signing in into the NAD portal. This authorized user uploads the awards data to this repository and publishes the awards for students and verifiers from the NAD portal.

Academic institutions will perform an initial one time task of uploading their academic data on NAD for previous years. The AIs will upload their academic records on NAD regularly - typically at the end of a semester or an academic year.

When the data is hosted in NAD repository, it needs to be uploaded to NAD repository in a Comma Separated Values (CSV) format as specified in Input Template for Academic Records at <https://nad.digitallocker.gov.in/resource-center>

ii. **Verification of data:** Once the CSV file containing academic records is uploaded, it is pre-processed to identify any errors in the data. The result of the pre-processing is shown to the user along with the corresponding success or error message for every record in the CSV file. The authorized user of the AI can correct the errors and upload the CSV file again.

iii. **Selecting the template for academic certificates:** The digital printable mark sheet and certificate provided to students in their DigiLocker account is generated using the standard design templates. The NAD repository provides a choice of three standard predefined design templates for publishing academic certificates. The AIs can choose one design template for their academic certificate. AI users can select and preview the certificate using the available design templates filled with the uploaded data before making a final choice.

iv. **Publishing the data:** After successful upload, verification and template selection, the data can be published on NAD. Publishing the awards will make the awards available to students and verifiers. The awards will also be linked to DigiLocker account of the students if student account is found using the necessary linking fields.

v. **Correction/Deletion of the data:** AIs may need to update/delete certain published academic records due to correction in academic performance as a result of re-checking, re-evaluation or any other reason. To correct certain academic awards, AIs will upload a CSV file containing the updated data for the records to be corrected. The format of the CSV file is

same as the one used for uploading the data for the first time. CSV file contains a field against every record to indicate add, update or delete operation. The value of this field will determine whether a record is added, updated or deleted from the repository. The process for upload and verification of this CSV file is similar to the upload and verification required for adding academic records.

Registration of Students

Students will be able to access their digital academic certificates on from NAD by using DigiLocker application. DigiLocker can be accessed using web application at <https://digilocker.gov.in> or using DigiLocker mobile application available on Google Play and Apple App Store.

Student's account is created on DigiLocker in either of the two ways:

- i. Student Registration on DigiLocker by AI
- ii. Student Self Registration on DigiLocker

Student Registration on DigiLocker by AI

Some field from academic records data uploaded by AI are used to create the DigiLocker Account of the student. If AI provides the data for these fields, NAD will automatically check whether the DigiLocker account exists for the student and will create it if it does not exist as outlined below. This bulk registration is possible if the academic records are hosted in NAD repository. It is not possible create bulk accounts in this manner if the academic records are hosted in the repository owned by AI and linked to DigiLocker through APIs.

- i. AI uploads academic awards data as outlined in *Hosting the academic records in NAD Repository* section above. This data contains following fields for student information:
 - a. Name
 - b. Date of birth
 - c. Gender
 - d. Mobile Number
 - e. Email Address
 - f. Aadhaar Number
 - g. DigiLocker Id

NAD uses this information to create student's account in DigiLocker.

- ii. A student's DigiLocker Id may be captured by AI at the time of admission/enrolment if the student already has a DigiLocker account. If DigiLocker Id is provided along with academic records, the student account already exists and is not created.
- iii. If the AI captures student's Aadhaar number at the time of admission, Aadhaar number may be shared with NAD along with the academic record. If student's Aadhaar number is provided, NAD uses this Aadhaar number to check if the DigiLocker account already exists. If an account is not found with Aadhaar number, NAD uses the demographic information (Name, Date of birth, Gender) along with mobile number to verify whether a DigiLocker account exists with this information. If the account does not exist either with Aadhaar or Mobile and demographic details, the student account is created using Aadhaar number, Name, Date of birth, Gender and Mobile number. The credentials of the account are sent to the student through SMS on the Mobile number provided above.
- iv. If the Aadhaar number is not available with awards data, NAD uses only demographic information (Name, Date of birth, Gender) along with mobile number to verify whether a DigiLocker account exists with this information. If the account does not exist, the student account is created using Name, Date of birth, Gender, Mobile and Email address. The credentials of the account are sent to the student through SMS on the Mobile number provided above.
- v. For the legacy data where Aadhaar number or mobile number is not available, the student account is not created. In such cases, students will have to self-register on DigiLocker.
- vi. **Mapping Academic Records to Students' Account:** If student information (Name, Date of Birth, Gender, Aadhaar, Mobile Number) is available with academic record, NAD first checks if a DigiLocker account exists with one of the following combination from the given data:
 - a. Aadhaar Number+ Name + Date of Birth + Gender
 - b. Mobile Number + Name + Date of Birth + GenderIf a DigiLocker account is not found using either of this combination, it is first created using this information and mapped to the academic award. If the account already exists with this information, it is mapped to the academic record. The academic certificate is automatically pushed to the mapped student's account at the time of publishing the awards. Students will find their academic certificates in their DigiLocker account upon login.

Student Self-Registration on DigiLocker

For legacy or older records where the academic records are not seeded with Aadhaar or mobile number, NAD cannot create the DigiLocker accounts of students. In such cases, students can create their account on DigiLocker themselves by signing up on DigiLocker web application at <https://digilocker.gov.in> or using DigiLocker mobile application available on Google Play and Apple App Store.

- i. Student will register on DigiLocker by providing his/her Aadhaar number. DigiLocker performs e-KYC to fetch the details of the student from UIDAI using his/her Aadhaar Number using the mobile number linked to the Aadhaar.
- ii. If the student's mobile number is not linked to Aadhaar, the student can perform Aadhaar demographic authentication by providing his Aadhaar number, name, date of birth and gender as per Aadhaar. This information is verified from UIDAI.
- iii. Upon successful Aadhaar e-KYC or demographic authentication from UIDAI, student's account is opened with DigiLocker.
- iv. Students can now access their DigiLocker Id by signing into their DigiLocker account and going to profile section. This DigiLocker Id can be shared by student with AIs so that their digital academic certificates are linked to this DigiLocker account.
- v. Students can also fetch their digital certificates by searching their AI in the issuer's list and providing the necessary search parameters such as year, roll number, semester etc.
- vi. **Mapping Academic Records to Students' Account:** First, an academic award is searched in academic repository using the year, roll number and semester information provided by student in above step. If the record is found, NAD used the Aadhaar number, Name, Date of Birth and Gender information from Aadhaar e-KYC or demographic authentication captured during DigiLocker sign up and matches it with the Aadhaar number, Name, Date of Birth and Gender information on the academic record. In case the academic records are Aadhaar seeded, only Aadhaar number is matched. If the academic records are not Aadhaar seeded, only Name, Date of Birth and Gender from DigiLocker is matched to this information on academic records. It is common that the name on Aadhaar and academic certificate may not match exactly and hence the name matching may fail. To avoid this, names are matched only partially. NAD removes all suffixes (Mr, Ms, Sh, Dr etc) and common names (Kumar, Kumari etc) from the names and then tokenizes the names. If any of the words in remaining names matched, then the name match is treated as

successful. This method along with date of birth and gender matching provides a sufficiently robust technique for mapping academic records to student accounts. If the name, date of birth and gender on DigiLocker account match with the same information on the academic record using this technique, then it is stored in student's DigiLocker account.

Verifier Organizations

NAD provides a mechanism to employers, AIs and any other organizations to verify students' academic records available on NAD through an API interface. The organizations that wish to verify academic records of the students using this interface must apply online using the link <https://partners.digitallocker.gov.in/public/register/orgreg/signup>. The application will be approved upon verification. The verifier organization can then get the necessary credentials to access the API by signing in into account on <https://partners.digitallocker.gov.in>. Verifying organizations are required to obtain and provide the consent of the student before accessing any academic record. The necessary technical API specifications required for verification of academic records from NAD are available at <https://partners.digitallocker.gov.in/requester.php>.

Contacts for Further Queries

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We are also available on Video Conference facility every Monday to Friday 3:00 PM to 5:00 PM. Please visit https://nad.digitallocker.gov.in/customer_support for further information.