



User Manual

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Digital signature and eMudhra

What is a digital signature?

We are living in a digital age today, where everything is either already available or is transitioning online. Also, this is an age where the businesses are going global, and we are travelling much more than we used to ever in the past. Further, the pandemic added to it. Now even if we are physically anywhere in the world, we need our business or work to operate efficiently. We want all our day-to-day transactions to function without being affected. Due to this way of living, new issues are emerging. One of them being, often we need to sign documents to give our consent to something important, but we may not be physically available to sign the documents. In such cases, we need to figure out a way out of this problem. This is where **digital signatures** come to the rescue.

A digital signature is based on some mathematical techniques. Which is used to decrypt the signature and which in turn helps us to verify the authenticity of the received message. If we know we have received a properly digitally signed document, we can be assured that this is coming from the right person. It gives us a way to verify the authenticity of the received message or document.

It is also a kind of **digital equivalent of the handwritten signature**, with added security.

Many countries these days are approving such digital signatures. They are also considered equally important and hold the same legal binding as the handwritten signatures.

What is a Digital Signature Certificate(DSC)?

Keeping the above in mind about a digital signature. However, if it comes with a certificate, which means it is properly verified by an agency that has the authority to give certificates to digital signatures by the country's government, then it holds even more security with it.

A certificate assigned with a digital signature gives a proper unique and verified identity to the person using it, where it is verified that the person is the same person and not an imposter or so.

A digital signature certificate becomes even more important when we have to do transactions on larger business levels and file taxes, etc. In short to do any legal and business transaction online it helps.

It is approved under the online transactions under the IT Act.

Digital signature certificates help in MCA(ROC) filling, GST, Income Tax filling, Tenders, foreign trade, banking, railways and e-procurement is done in India.

What is eMudra?

eMudhra is a **certifying authority (CA)** approved by the **Certification Authority (CCA)** of India, to grant such certificates to **individuals or organisations**. eMudra certificates guarantee authenticity and integrity of the person or organization.

It offers various options to select from which are made keeping in mind the needs of every individual or organizations.

eMudhra is one of the largest organization in India providing **digital signature certificates(DSC)**.

Classes of DSC:

There are primarily **3 major classes of Digital Signature Certificate**. These classes differ on the basis of level of security they offer.

They are described as below:

Class 1 - Class 1 certificate are issued to both business and private individuals. This provides a **basic level of assurance** relevant for **low to no risk environment**.

Class 2 - Class 2 certificates are issued to both business and private individuals. This is validated against **pre-existing databases**. This provides a **moderate level of assurance** relevant for transactions that are exposed to **some risk or fraud**.

Class 3 - Class 3 certificates are also issued to both individuals and organizations. These are the **highest assurance certificates** since they are provided only when an individual or organization presents themselves **in front of the certifying authority**. These are used for **e-commerce transactions, trading**, etc. It is relevant for high level risk environment.

eMudhra provides the class 3 DSC, with a validity period of **1 year, 2 years or 3 years**. Class 3 DSC is now mandated to be used for all types of transactions in India

Uses of eMudhra:

eMudhra is used to sign for the below processes/documents:

- MCA e-filing
- Income Tax e-filing
- LLP Registration
- GST Application
- IE Code Registration
- Form 16
- CBSE School
- Director's KYC
- e-Tendering
- e-Procurement
- e-Bidding
- ICEGATE
- Foreign Trade
- Patent and Trademark e-filing
- Customs e-filing

- E-auctions
- Raw digital signature certificate and sign documents
- EPFO filings
- Proves ownership of domain name

Pros and Cons of using this application:

Pros:

- Digital signature **secures email** and **web-based transactions**
- High level of **security to online transactions**
- Gives you an **authentic online identity**
- Helps in a lot of **time saving**
- Helps in a lot of **cost saving**
- **Fast and efficient work**
- Provides an **automation**
- Much **better security** in online transactions
- No or **less** chances of **frauds**
- **High speed of work delivery**
- Offering an **environment friendly sustainable** way by saving paper
- When you sign a document digitally, it automatically gets **timestamped**, so you know when it was signed
- The **quality remains intact** even over the years
- **No need to be present physically**, you can sign the documents anywhere, just need a digital equipment and a good internet
- You can trust it as **it is legal** and comes from a **government authority**
- You can sign **multiple documents** in a very **less amount of time**
- **Happy customers** at the end

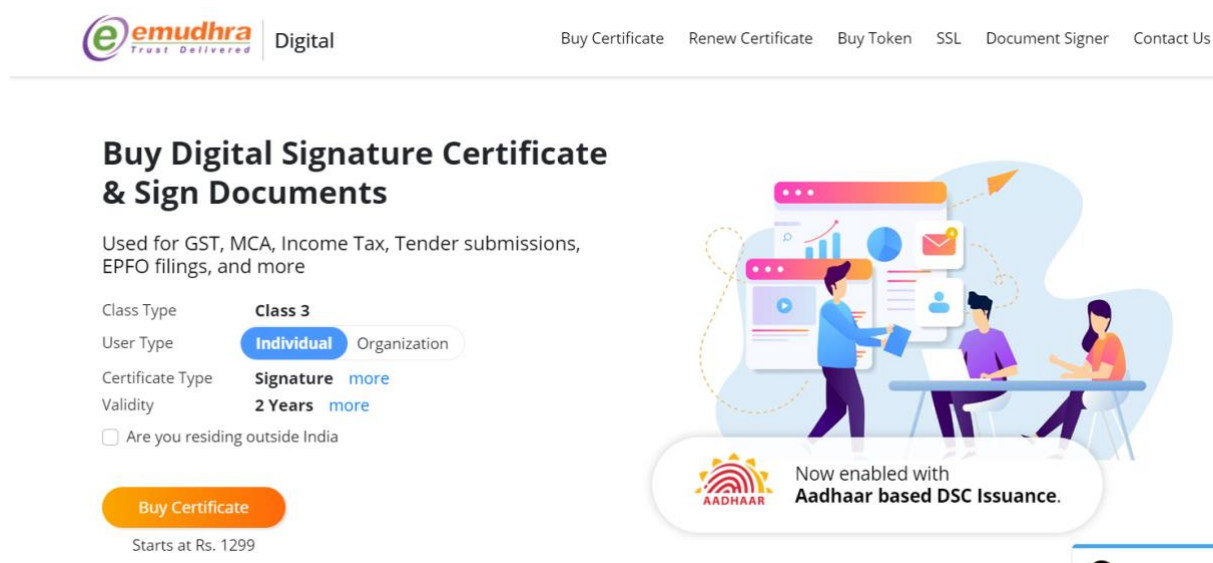
Cons:

- Knowledge is needed to know which type of signature to use where based on their security level, not having this knowledge can be dangerous and expose the data to a risk.
- Both the sending and receiving party needs to be **technology friendly**, they should at least have some basic information about how to use mobile or the softwares.
- A proper **technical infrastructure** may be required.
- **Software costs** are incurred and needs to be maintained
- The softwares and drivers always need to be **updated**
- It adds to additional costs for the person receiving as well, since they need to have the same environment and tools to access the signature
- Since they have an **expiry date**. Needs to be applied again after every few years. This may cause hassle of time.
- Need to buy proper security and **SSL Certificates** by both the parties from trusted authorities.
- Various **space and security issues** that arise with their **storage**

- There are so many companies providing digital signatures and not all of them are **compatible** with each other, that causes some discrepancy and issues sometimes.
- Not all countries yet comply with the digital signed document, so it's always better to check beforehand for any legal issues if they may arrive
- Since its so much dependent on hardware and software, a downtime in both or any of them can cause a difficulty in accessing right and important information at the right time

The Website

The below is a home screen / landing page of the **emudhradigital** site:



The screenshot shows the emudhra Digital website interface. At the top, there's a navigation bar with links: Buy Certificate, Renew Certificate, Buy Token, SSL, Document Signer, and Contact Us. The main heading is "Buy Digital Signature Certificate & Sign Documents". Below this, it states the certificate is used for GST, MCA, Income Tax, Tender submissions, EPFO filings, and more. The selection process includes:

- Class Type: Class 3
- User Type: Individual (selected) or Organization
- Certificate Type: Signature (selected) or more
- Validity: 2 Years (selected) or more
- A checkbox for "Are you residing outside India".

 A prominent orange "Buy Certificate" button is shown, with a note "Starts at Rs. 1299". To the right, there's an illustration of three people working at a desk with a large screen displaying charts. Below the illustration, a banner states "Now enabled with Aadhaar based DSC Issuance." with the Aadhaar logo.

There are various options to select from, as follows:

Class Type **Class 3**

User Type **Individual** Organization

Certificate Type **Signature** more

Validity **2 Years** more

☐ Are you residing outside India

- They mostly give the **Class 3 DSC**.

- **User type** can be **Individual or organization**
- You have 3 options to chose from the **Certificate Type: Signature, Encryption and Both**

Certificate Type **Signature** [more](#)

Validity **2 Years** [more](#)

☐ Are you residing outside India

[Buy Certificate](#)

Signature

Encryption

Both

- **Validity** can last upto **1-3 years**.
- You can also file it from **outside India**, you need to **select the check box**.

Validity **2 Years** [more](#)

☐ Are you residing outside India

[Buy Certificate](#)

1 Year

2 Years

3 Years

- You can **buy the certificate** starting from **price 1299 only**.

[Buy Certificate](#)

Starts at Rs. 1299

[Buy Certificate](#) [Renew Certificate](#) [Buy Token](#) [SSL](#) [Document Signer](#)

You can avail various services like, click on each on the UI to know about it:

- Buy certificate
- Renew certificate
- Buy token
- SSL
- Document signer

Troubleshooting

Technical issues that people face while using this application:

Problem: Unable to register or sign in DSC on the GST portal

Solution: Check if the emSigner is started or not.

If it is already started, stop the server and start the emSigner server as 'Run as Administrator'.

Problem: Getting a black/blank screen when opening the eMudhra app

Solution: This is one of the most common errors in **android OS**. Try the below few ways to solve it:

- Reload the application by forcibly closing it
- Do hard reboot
- Restart the phone
- If the above doesn't fix the issue then uninstall and reinstall the app
- If the above also doesn't work, then try to install an older version of the app

Problem: The app doesn't load or loads with errors(server/connection)

Solution: It may happen due to one of the below reasons:

- Check your wifi/internet connection
- Server may be down
- Too many users may be using the app at same time

In the above 2 cases, try after some time.

Problem: Error shows as "Failed to establish connection to the server. Kindly restart the Emsigner"

Solution: Check if the emSigner is started or not:

- If the emSigner server is started, stop the server and restart the emSigner server as 'Run as Administrator'.
- If the emSigner server is not started, start the emSigner server as 'Run as Administrator'.

Bibliography

Gathered most of the information from emudhradigital and emudhra websites.

Referred some information from google, researching and reading on various sites.

Gathered the troubleshooting information from:

<https://www.mwallpapers.com/apps/productivity/com.emudhra.esignpdf/problems>

And

https://tutorial.gst.gov.in/userguide/loginanddsc/Troubleshoot_DSC_Issues.htm