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Chair of Materials Science and Nanotechnology, TU Dresden

PMN IT Information Event

Dresden, 04.02.2025

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General information – IT administration

- **ZIH** is IT administration unit of TU Dresden
- Therefore, you can write to ZIH if you have any problems with IT services

<https://faq.tickets.tu-dresden.de/otrs/public.pl>
servicedesk@tu-dresden.de

- We are only contact persons for
 - Your office PC/laptop
 - Software like Microsoft Office, Origin etc.
 - Network printer
 - Presentation support → Laptop, Microphones, Webcams, Presenter etc.

General information - Website of our Chair

- **Public website**
 - <https://nano.tu-dresden.de/>
- **Internal area on website**
 - <https://nano.tu-dresden.de/shared/>
 - **User:** nano
Password: nano
 - Here we share helpful documents
- **Please check if your profile information is up to date**
 - <https://nano.tu-dresden.de/team/>

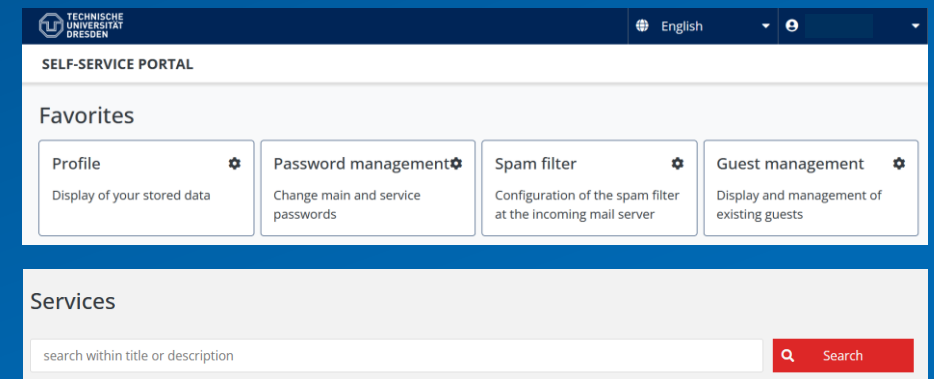
What does the IT infrastructure look like?

1. Basics
 - *What do I definitely need for my digital workplace?*
2. Communication & Collaboration
 - *How can we work efficient in a team?*
3. Data storage
 - *Where can I save my data?*
 - *How can I share my data?*
4. Software
 - *How can I get helpful licensed software for my work?*
5. Workstations and Server
 - *Where can I run hardware resource-hungry software?*
6. Security and Network
 - *What do I need to do to protect my data and the data of my colleagues?*

- What do I need to have access to all of that?

→ **Your ZIH login** ←

- To manage your *passwords* and *personal information* go to
<https://selfservice.tu-dresden.de/>
- See all services at glance in Self-Service Portal



1. Basics - Your digital ID at TU Dresden (user certificate)

- **Signing documents digitally (next slide), encrypt and decrypt**
- Type “certificate” into the search field of the self-service portal

SELF-SERVICE PORTAL

My tasks | Data protection declarations

Certificate management (Apply for user certificates and server certificates)

Service description | **Manage user certificates** | Server certificates via Sectigo | Revoke certificates of DFN-PKI | Search for certificates of DFN-PKI

On this page you can view your existing user certificates, revoke them or apply for new ones.

Request certificate

Search

E-mail	Valid until	Serial number	Status	Actions
steffen.kampmann@tu-dresden.de			valid	

Lines per page: 10 | 1-1 from 1 |  1 

Services

certificate

IT security, authentication and authorisation

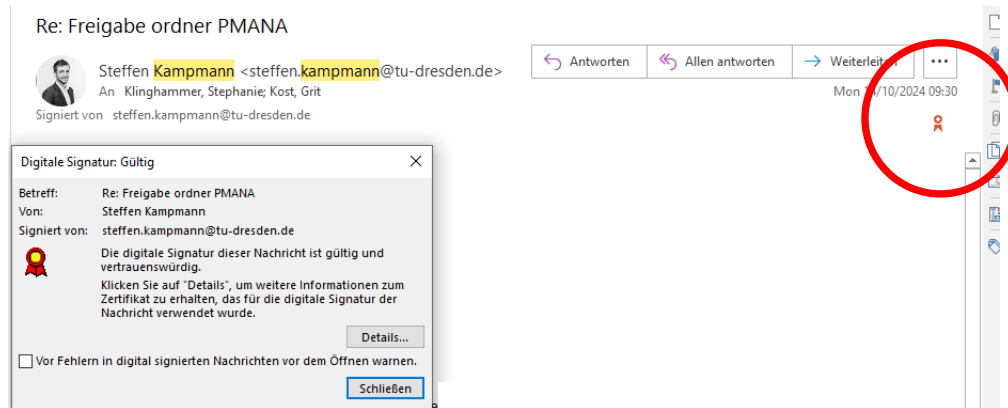
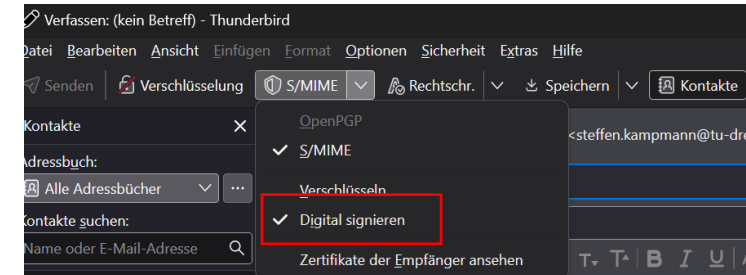
Certificate management

Apply for user certificates and server certificates

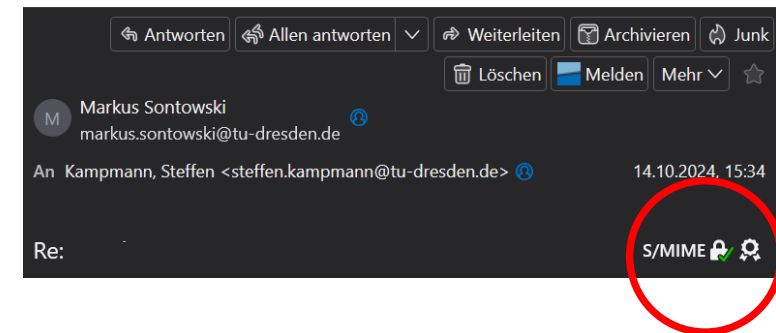
- **Request certificate**
- Service-Desk visitor address:
 - Andreas-Pfitzmann-Bau, Room E036 Nöthnitzer Straße 46, 01187 Dresden
 - <https://navigator.tu-dresden.de/etplan/apb/00/raum/542100.2480?language=en>
 - Opening hours: Monday – Friday → 08:00 – 19:00
- Full documentation: <https://tud.link/wtvyx5>

1. Basics - Use your user certificate for your emails

- After you have installed the certificate, you can select the certificate in your mail program
- Importing the user certificate into:
 - Outlook: <https://tud.link/m7xx9k>
 - Thunderbird: <https://tud.link/eb25ta>
- Sets the e-mails to be signed automatically
- The digital signature is displayed for the recipient



Outlook



Thunderbird

Everybody should use the digital signature!

1. Basics – Email

- **Email**

- In Browser: <https://msx.tu-dresden.de>
- Setup instructions for email clients:
 - Outlook: <https://tud.link/k43h> for **Windows** and <https://tud.link/8gfu> for **MacOS**
 - Thunderbird: <https://tud.link/8wpk> for **Windows, MacOS, Linux**
 - Apple Mail: <https://tud.link/7jpf> for **MacOS** and <https://tud.link/nhcq> for **iOS/iPadOS**
 - Gmail: <https://tud.link/15t4> for **Android**
- Please setup your signature according to your affiliation
 - Template example:

Your_title Your_name
TUD Dresden University of Technology
Faculty of Mechanical Science and Engineering
Institute of Materials Science
Chair of Materials Science and Nanotechnology
Phone: +49 (0) 351 463-XYZ
www.nano.tu-dresden.de



[1]

[1] DALL-E: <https://chat.openai.com>

2. Communication and collaboration – Video Calls and Chats

- **Zoom**

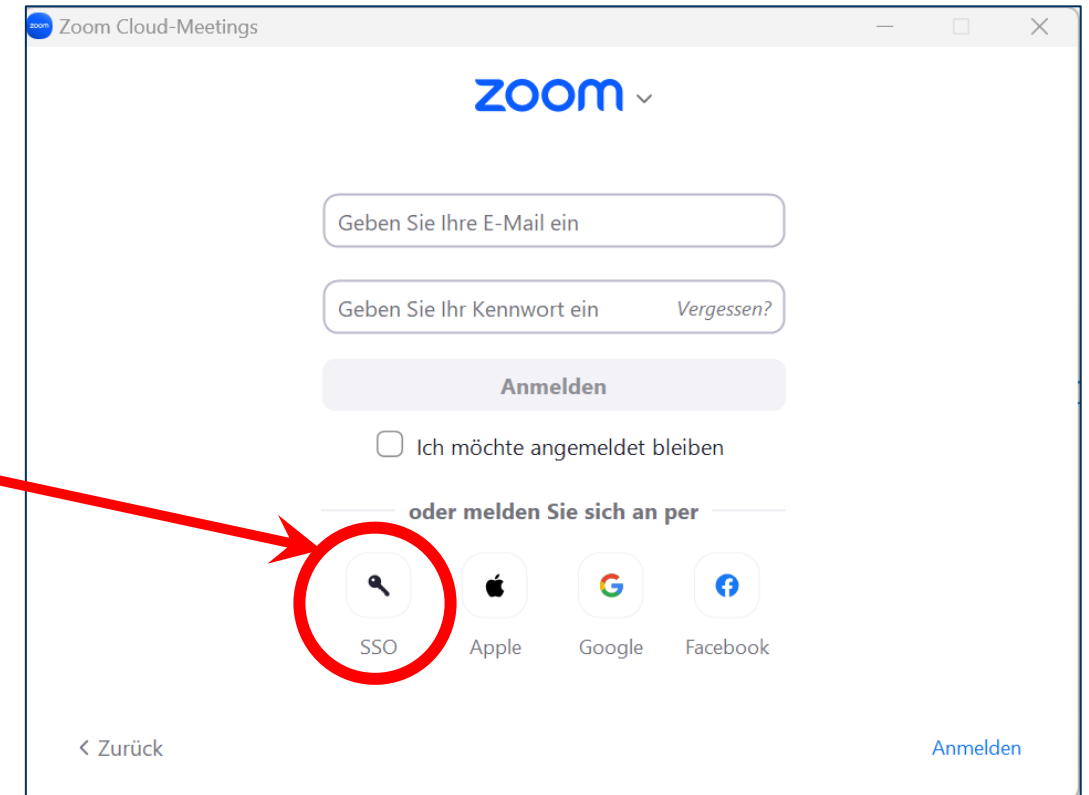
- Click „Sign in“ at <https://tu-dresden.zoom.us/>
- Create your personal link for your own Zoom room
https://tu-dresden.zoom-x.de/my/Your_Name
(Left menu on „Meetings“ → „Private room“)
- You can sign in with your ZIH-Login if you click on SSO and type *tu-dresden* in the appeared text field

- **BigBlueButton**

- <https://bbb.tu-dresden.de/>

- **Matrix-Chat**

- Chat for internal communication with students or colleagues
- Chat rooms, personal chats etc.
- <https://matrix.tu-dresden.de>



2. Communication and collaboration – Writing article

Sharepoint (Word, Powerpoint etc.):

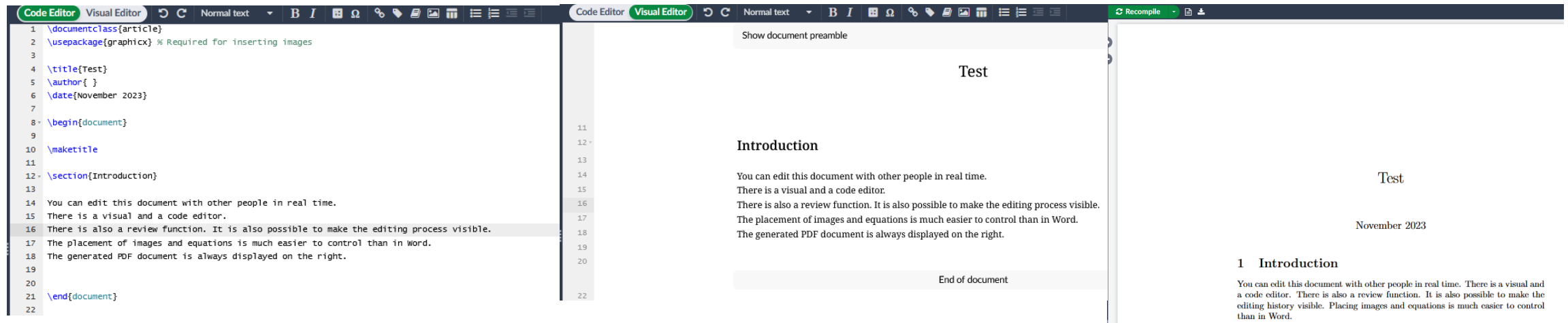
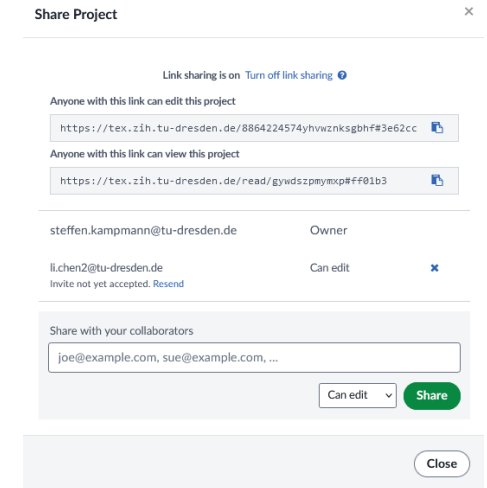


[1]

- <https://selfservice.tu-dresden.de/services/258944/>

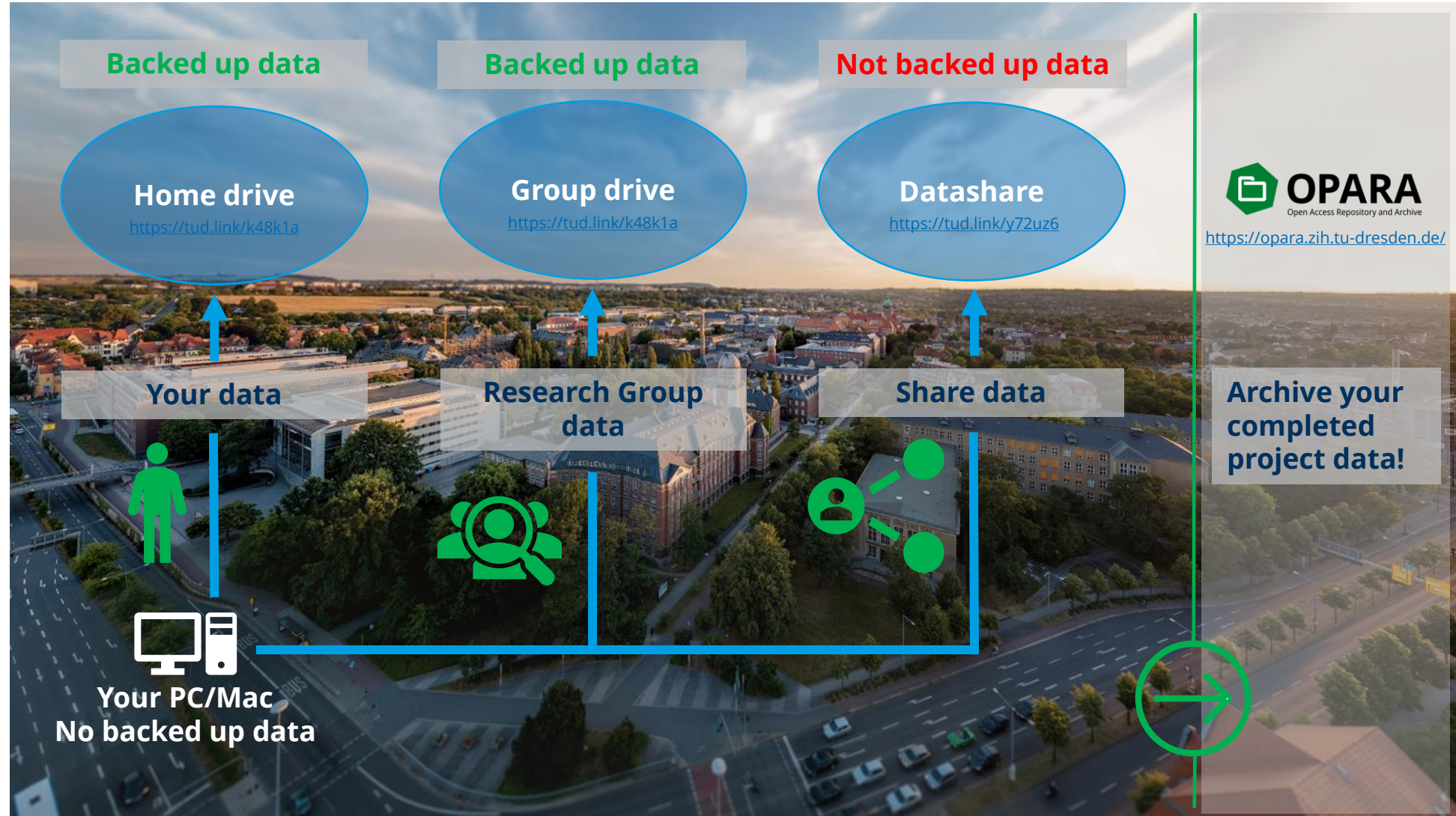
ShareLatex:

- equivalent to Overleaf, but can be used without restrictions
- <https://tex.zih.tu-dresden.de/>



[1] <https://de.wikipedia.org/>

3. Data storage - Overview



3. Data storage – Which group drives are available at the chair?

pmana (10 TB)

- Contains any chair related data
→ Win: <\\vs-grp02.zih.tu-dresden.de\pmana> Mac: <smb://vs-grp02.zih.tu-dresden.de/pmana>

pmnnano (5 TB)

- Contains project and administrative related data of Theory group
→ Win: <\\vs-grp08.zih.tu-dresden.de\pmnnano> Mac: <smb://vs-grp08.zih.tu-dresden.de/pmnnano>

pmnent (5 TB)

- Contains project and administrative related data of Environmental nanotechnology group
→ Win: <\\vs-sec-smb3.zih.tu-dresden.de\pmnent> Mac: <smb://vs-sec-smb3.zih.tu-dresden.de/pmnent>

pmnnst (5 TB)

- Contains project and administrative related data of Nanoelectronics for sensor technologies group
→ <\\vs-grp08.zih.tu-dresden.de\pmnnst> Mac: <smb://vs-grp08.zih.tu-dresden.de/pmnnst>

pmnraw (50 TB) (only Snapshots, no backup, no mirror)

- Contains raw research data of every group
→ <\\vs-grp07.zih.tu-dresden.de\pmnraw> Mac: <smb://vs-grp07.zih.tu-dresden.de/pmnraw>

3. Data storages – Share your data easily

- **Datashare** based on Nextcloud environment
 - <https://datashare.tu-dresden.de/>
 - You can upload, download and share Data with internal and **external people**
 - **App** for Windows, Mac, iOS and Android
 - <https://nextcloud.com/de/install/#install-clients>
 - Installation and setup manual: <https://tud.link/fsvs>
- **Gigamove 2.0**
 - Share of large data until 100 GB (*Hint: Zip data to one file and then share it*)
 - <https://selfservice.tu-dresden.de/services/2250335/>



[1]



[3]



[2]

- [1] <https://de.wikipedia.org/>
[2] <https://gigamove.rwth-aachen.de/en>
[3] DALL-E: <https://chat.openai.com>

4. Software – Useful Tools

- **Microsoft Office**
 - Microsoft Office 365 is also available for **private** PC/Laptop (**WARNING:** No permission to use Outlook 365 for TU email account)
→ For employees: <https://tud.link/9nl1> → For students: <https://campussachsen.tu-dresden.de/>
- **Origin**
 - License of chair available (Version 2024, **also usable in VPN of TU Dresden**)
→ please contact stephanie.klinghammer@tu-dresden.de or steffen.kampmann@tu-dresden.de
 - For students **private** PC/Laptop: <https://tud.link/h928>
- **Matlab**
 - For students and employees **office/private** PC/laptop
 - <https://de.mathworks.com/academia/tah-portal/tu-dresden-40758619.html>
- **Solidworks**
 - License of chair available → please contact steffen.kampmann@tu-dresden.de
- **Sophos**
 - Anti Virus for **private** Laptop → <https://home.sophos.com/en-us/employee>
- **Alternatives for Adobe Products:** <https://tud.link/pmx21m> (Affinity Designer), <https://tud.link/7u6kbt> (PDF Studio Pro), <https://tud.link/jrqhwv> CorelDRAW Technical Suite



Full software list: <https://tud.link/xn1o>

4. Software – Be Careful

Please do not use

- **External cloud services** like:
Dropbox, iCloud, Google Drive, OneDrive etc.
→ **Do not** save your research data here
- Software with illegal license
- Software from Kaspersky Lab

Please use following services of TU Dresden

- **Home and Group drives**

→ **Save your research data here**
- Software list of TU Dresden or ask colleagues for alternatives
- Sophos (already installed)

Please only install software from trustworthy sources
E. g. for open source software: <https://www.heise.de/download/>

5. Workstations and Server – Powerful Hardware

- Run your calculations on specialized Hardware that is available 24/7
- Remote workstations for computing
 - <https://selfservice.tu-dresden.de/services/research-cloud/>
 - Preinstalled (Ubuntu, Windows ...)
 - Easy installation of software
 - No waiting times
- High Performance Computing (HPC)
 - <https://doc.zih.tu-dresden.de/>
 - To get access please contact **Dr. Rafael Gutierrez**
(rafael.gutierrez@tu-dresden.de)
 - **Third largest GPU cluster in Germany**



[1]



[2]

[1] DALL-E: <https://chat.openai.com>

[2] <https://tu-dresden.de/>

5. Workstations and Server – First Steps

- **Remote PC (Windows) hosted by TU Dresden**

- <https://rds.zih.tu-dresden.de/>
- As student **choose** “Office Collection”
- Many preinstalled software like Origin, COMSOL Multiphysics, Microsoft Office, Python, SPSS, Maple etc.
- Your home drive is already mounted
- You have access to your data on your local PC too

- **Control your office or lab PC remotely**

- You can control your **office or lab PC** from everywhere
- <https://rsupport.zih.tu-dresden.de/users/main/downloads.html>
- You can find a simple manual in following document
<https://nano.tu-dresden.de/shared/16>



6. Security and Network – Scam Emails

Available?

 Gianaurelio Cuniberti <profmail88@mail.ru>
An Kampmann, Steffen

Let me know if you are free right now.

BR
Gianaurelio Cuniberti

Have you got some free time?

 Gianaurelio (Giovanni) Cuniberti <maaike.bader@mail.ru>
An Kampmann, Steffen

Email me back as soon as you get this. Thank you.

Do you have some minutes?

 Prof. Dr. Gianaurelio Cuniberti <deanprof2@mail.com>
An

Hello.
I need a quick response from you, Kindly email me back as soon as possible.

Regards,
Prof. Dr. Gianaurelio Cuniberti
Head of Department

Prof. Dr. Gianaurelio Cuniberti <deanprof3@r
Sa 29.07.2023 18:32

An:

 | Aktionselemente

I really appreciate your response, I urgently need your help to purchase some Apple iTunes Gift cards from any store around you. There are some prospects I need to send Gift items but I can't do that right now because I'm currently attending to a friend at hospital who is critically sick. Please let me know if it's possible to get them right now, so I can tell you what amount I'll need, I will surely reimburse you.

Regards

You will NEVER be asked for your password or for money and vouchers

Report Scam email to TU Dresden (ZIH)

- <https://tud.link/35d7>

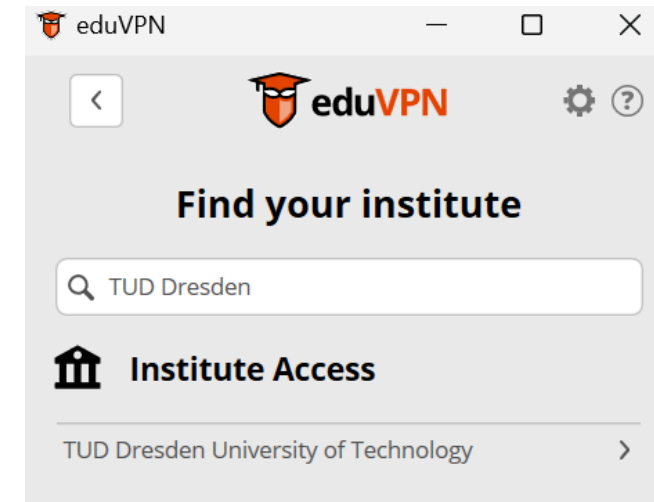
6. Security and Network – Stay connected with TU Dresden

- To have full access to all **services** stay in the TU network with VPN
 - Secured connection in public Wi-Fi networks e. g. on conferences
 - Required for accessing the home and group drives

[1]

VPN

- **Install eduVPN software**
 - <https://www.eduvpn.org/client-apps/>
- **Search** for TUD Dresden... and select **TUD Dresden University of Technology**
 - **Done!**
- **Please note:** Support for OpenVPN and Cisco AnyConnect will end during this year



You can install on your private and office laptop/PC

Thank you for your attention!