

TAC – Report for Kick-Off Meeting (2nd month)

- Discuss the Ph.D. task, scope, impact, feasibility and associated risk of the project and set up the Ph.D. task definition
- The TAC members should be nominated and the TAC agreement should be signed.

Date:

18th Nov. 2021.

Name, Surname (Ph.D. candidate):

Donggun (Dennis) Kang.

Host institution:

The Chair of Materials Science and Nanotechnology.

Starting date at the chair:

1st September 2021

Task for Ph.D. thesis:

Ph.D. Topic:

Sliding contacts in liquid environments :
A nanotribology study.

Research objective:

To understand the environmental effects
of nano-scale sliding friction of two surfaces
in contact in the presence of liquid media.

Ph.D. thesis supervisor/Doktorvater:

Prof. Dr. Gianaurelio Cuniberti.

Scientific Day-to-Day supervisor:

Prof. Dr. Enrico Gnani.

TAC Statements

1. Gained experiences/learnings/establishments

What are the student's experiences with other scientific cultures and other countries?

What has the student learned during the stay abroad/at other universities?

Which collaborations established during these stays are still active today?

United Kingdom, Primary ~ University. (2006-2020).

HBM Prencia, UK - Fracture mechanics, L-PBF Additive Manufacturing

- Extensive literature review on fatigue performance evaluation of L-PBF AM Ti-6Al-4V alloys.

2. Scientific qualifications/skills

Which scientific qualifications/skills should be acquired?

The University of Sheffield, new scientific paper planned to be released based on my M.Eng data (thesis).

I expect to become an expert in Atomic Force Microscope and the phenomenon arise from nano-scale friction (Nanotribology).

and possibly a coding too (Python & C++).

3. Examination for students without Engineering degree

Every student without an Engineering degree needs to absolve two additional courses within the Faculty of Mechanical Science and Engineering to proof the engineering knowledge (see Promotion-sordnung §9, between 10 and 20 credit points in total).

Additional course I: *M.Eng. title holder,*

Additional course II: *no need.*

☒ TAC agreement filled and signed.

Next TAC Meeting (date):

Feb. 2023

Signature Ph.D. candidate:

[Signature]

Signature Ph.D. thesis supervisor/Doktorvater:

[Signature]

Signature Day-to-Day supervisor:

(i.A. F. ENRICO GNEGLIO)

After signature, please hand in this report to the office of Prof. Cuniberti.

Thesis Advisory Committee (TAC) - Agreement

This TAC-Agreement states the official supervision agreement between the Ph.D. student and the Chair of Materials Science and Nanotechnology.

The Ph.D. student shall be supported by the supervisor(s) to obtain further qualifications. This relates to the participation in specialist and cross-discipline training within a reasonable timeframe as well as to the encouragement of the candidates' academic output in an appropriate form (e. g. participation in conferences, publications of academic results or teaching). At the same time, the student commits to adhering to the TAC process.

I herewith confirm that Mr./Mrs.

Dennis Kang

has been accepted as a Ph.D. student at the Chair of Materials Science and Nanotechnology and accompanied in her/his work by a **Thesis Advisory Committee (TAC)**, which consists of

Ph.D. thesis supervisor/Doktorvater: Prof. Dr. Gianaurelio Cuniberti

Scientific Day-to-Day-supervisor:

Eurico Gueso Marco Lelerm

Further supervisors:

The Ph.D. student is registered or plans to register for the Ph.D. thesis at the

- ☒ TUD Faculty of Mechanical Science and Engineering (Dr.-Ing.)
☐ TUD Faculty of Physics (Dr. rer. nat.)

as

- ☐ Individual Ph.D.
☐ Within a Ph.D. program ☐ IMPRS ☐ Other one _____

Subject of the dissertation (working title):

Nanotechnology of Nanomaterials

Planned timeframe for the dissertation project:

Start: 01.09.2021

anticipated end: 01.09.2024

The status and progress of the dissertation project shall be discussed between the doctoral candidate and the Thesis Advisory Committee (TAC):

1 st TAC meeting (after approx. 4 months):	<u>2021</u> / <u>Nov</u>	year/month
2 nd TAC meeting (after approx. 16 months):	<u>2023</u> / <u>Feb</u>	year/month
3 rd TAC meeting (after approx. 28 months):	<u>2024</u> / <u>Feb</u>	year/month

Confirmation of general instructions:

Ph.D. regulations (Promotionsordnung)

Herewith, I confirm that I read and completely understood the Doctorate Regulations of the Faculty of Mechanical Science and Engineering (Promotionsordnung) which are related to the official acceptance as a doctoral candidate by the Faculty.

TUD Graduate Academy

If not already happen, all students need to register at TUD Graduate Academy. Therefore, you have to fill in the Supervision Agreement which you will find on the webpage of the Graduate Academy (https://tu-dresden.de/ga/mitgliedschaft/promovierende?set_language=en).

Compliance with good academic practice and behaviour in the case of trouble

- All parties are obliged to follow the Principles of good academic practice at the Technische Universität Dresden and the rules for dealing with academic misconduct and to comply with the instructions under copyright law for texts and/or findings.
- In case of trouble between the Ph.D. candidate and the supervisor(s), both parties are get in touch with the Ph.D. office of the Faculty of Mechanical Science and Engineering. The responsibility of other committees of the TU Dresden as well as the independent ombudsman appointed by the Rectorate for questions of good academic practice and in the case of academic misconduct remains unaffected.

Dresden,

13. October 2021.

Dresden,

17.11.2021

Ph.D. student
Signature



Ph.D. thesis supervisor/Doktorvater
Signature



After signature, please hand in this agreement to the office of Prof. Cuniberti.