

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Professor

**Name:** Grzegorz

**Surname:** Adamiec

**Affiliation:** Silesian University of Technology, Institute of Physics -  
Centre for Science and Education, Division of Geochronology and  
Environmental Isotopes



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**Select the position you are applying for:**

- President**
- Young researcher** (PhD degree awarded on [Click or tap to enter a date.](#))
- Ordinary member**

#### **Biography:**

I have been working on luminescence for nearly 30 years. Currently, I serve as an Associate Professor at the Division of Geochronology and Environmental Isotopes, Institute of Physics, at the Silesian University of Technology in Gliwice, Poland. I teach physics, introduction to Python and Introduction to machine learning and artificial intelligence. In addition, I am a stakeholder at  $\mu$ Dose Ltd.

My primary areas of research interest are the luminescence of quartz, measurement methodology, application of Optically Stimulated Luminescence (OSL) to the dating of geological sediments, dose rate determinations, optimisation problems.

In 1994, I received my MSc in Technical Physics from the Silesian University of Technology where I dated Neolithic Pottery from an archaeological site using TL. In 2000, I earned a Doctor of Philosophy degree from the University of Oxford, UK, for my thesis "Aspects of Pre-Dose and

Grzegorz Adamiec

Other Luminescence Phenomena in Quartz Absorbed Dose Estimation." In 2015, I received my DSc degree from the Nicolaus Copernicus University in Toruń, Poland.

I have been an editor of the journal *Geochronometria* since 2005 and have also served as a guest editor for *Radiation Measurements* for the 13th, 15th, and 16th LED. Additionally, I have been a member of the editorial board of *Radiation Measurements* since 2015.

For more details on my biography see <http://orcid.org/0000-0002-5834-7854>

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

Establishing the International Society for LED is a crucial and long-overdue step in the field of trapped charge dating methods. Given the discussions surrounding the creation of the society and my personal interests, I would like to focus on the following areas:

- 1) Establishing wider interlaboratory comparisons of equivalent doses and annual doses.
- 2) Supporting young researchers.
- 3) Supporting laboratories, particularly newly established ones, in implementing best practices.
- 4) Developing publishing guidelines that trapped charge dates should adhere to in order to ensure high quality of published dates.

I envision the role of the steering committee to be that of coordinating efforts in these areas, undertaken by work groups created by volunteers from the community. The outcomes of these efforts could include a consensus-based knowledge base of best practices, resources supporting calibration procedures for instruments used for equivalent dose and annual dose estimations, and guidelines for ensuring the quality of published dates.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Postdoctoral researcher

**Name:** Aditi Krishna

**Surname:** Dave

**Affiliation:** Babeş-Bolyai University, Cluj-Napoca, Romania

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#### Select the position you are applying for:

- President
- Young researcher (PhD degree awarded on [Click or tap to enter a date.](#))
- Ordinary member

#### Biography:

I'm a Postdoctoral researcher in the European Research Council (ERC) project – PROGRESS at Babes-Bolyai University, Cluj-Napoca, Romania. My current research is focused on understanding the behaviour of defect centres in quartz using trapped charge techniques of luminescence and electron spin resonance (ESR) in rocks and sediments to better understand its application as a proxy for provenance.

I did my B.Sc and M.Sc in Chemistry from the University of Delhi, India (2009 -2014). Following which I pursued an M.Sc. in Archaeological Sciences as a Felix Scholar at the University of Oxford (2014-15). It was here that I developed an interested in luminescence and did my masters project in luminescence dating of burnt flints and sediments at a palaeolithic site in western Italy. After my Masters, I was a Visiting researcher (2015-16) at the Physical Research Laboratory (PRL) India, where I worked on constraining the hydrological regime of palaeo-river channels in northwest India using luminescence dating and studied its implications on settlements of the ancient Harappan civilisation. Post my work at PRL, I moved to Germany and did my PhD in Geosciences at the Max Planck Institute for Chemistry, Mainz (2021). My PhD

Aditi Dave

aimed at understanding Quaternary aeolian landscape - climate interactions in the piedmonts of Central Asia using luminescence and electron spin resonance techniques; wherein I utilised these techniques not only as classical dating tools, but also developed and applied these methods for determining provenance. After my PhD, I was a Postdoctoral fellow in the Department of Geosciences at University of Tübingen, Germany (2021-2022), and subsequently moved to Romania in Aug 2022, where I'm currently based.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

The past two decades have seen an instrumental growth in development of dating methodologies as well as an exponential rise in diverse applications of trapped charge techniques, that have the potential to greatly revolutionise the field of archaeo- /geosciences. These transformational years in the LED community demand an International Society that ensures accessibility, engagement and collaboration between laboratories across the world. I believe for a 'Society' to be impactful, it requires active participation and involvement from the community. I envision the LED Society can serve as that platform by establishing dedicated working groups within the society that allow researchers from across the world to actively address, engage and collaborate (as well as share knowledge) on topical issues within the LED framework. As a Young Researcher in the Steering Committee of the LED Society, I foresee myself contributing to this endeavour and ensuring that this platform especially encourages active participation and engagement from early career researchers from across the world.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Associate Professor

**Name:** Anchuan

**Surname:** Fan

**Affiliation:** USTC Archaeometry Lab, University of Science and Technology of China

**e-mail:** [anchuan@ustc.edu.cn](mailto:anchuan@ustc.edu.cn)



**Select the position you are applying for:**

- President
- Young researcher (PhD degree awarded on [Click or tap to enter a date.](#))
- Ordinary member

#### Biography:

Dr. Anchuan Fan has served as the director of USTC Luminescence Dating Laboratory since 2020. His research area mainly focuses on the innovation and application of luminescence and other technologies on archaeological and museum heritage materials, including pottery, hearth, kiln and ceramic mold for bronze casting.

He received a BSc from the University of Science and Technology of China (USTC) in 2006, and a PhD in Earth Sciences from the University of Hong Kong (HKU) in 2010. From 2010 to 2012, he worked at the Luminescence Laboratory at National Taiwan University in Taipei City.

In 2014, Dr. Anchuan Fan has successfully hosted the 14th Chinese Luminescence and ESR Dating Meeting with more than 130 representatives. He serves in the committee for both the China Association for Conservation Technology of Cultural Heritage and Society for Chinese Archeology since 2014. He has served on 11 conference and workshop program committees

Anchuan Fan

and program chairs. He is currently the president of the Youth Innovation Promotion Association in Hefei, Chinese Academy of Sciences.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

I consider myself being in the LED society for 14 years since my first attendance at the 12th LED conference in Beijing 2008 and my first presentation in UK LED in 2009. The LED Society, which we all are preparing, shall inherit the excellent tradition of collegiality of the luminescence and ESR dating community, as well as embrace colleagues from multi-disciplinary research fields. The Society should continuously be a communicating platform for both technique and application in physics, chemistry, geology, environmental sciences and related disciplines.

There are 2 contributions I would to make as a member of the steering committee:

- (1) Improve multi-disciplinary research by broadcasting the research output of our society members, enhance the reputation of the LED in other societies, e.g., archaeology, geochronology and geomorphology societies.
- (2) Promote the development of LED dating standards, including a series of standards including calibration procedure, sampling, instrument, measurement and report filing, which eventually would promote sustainable development of the LED Society.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

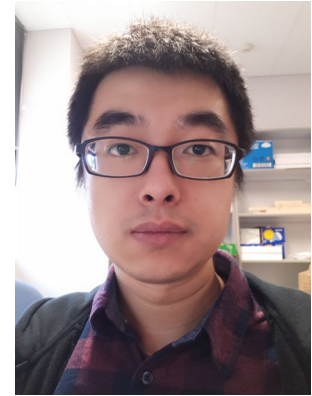
**Title:** Associate Professor

**Name:** Xiao

**Surname:** Fu

**Affiliation:** School of Earth Sciences, Zhejiang University, China

**e-mail:** [fuxiao@zju.edu.cn](mailto:fuxiao@zju.edu.cn)



#### Select the position you are applying for:

- President
- Young researcher (PhD degree awarded on [Click or tap to enter a date.](#))
- Ordinary member

#### Biography:

Xiao Fu is currently an associate professor at School of Earth Sciences, Zhejiang University, China. He has been an OSL researcher for 15 years since he started his master's degree study in the OSL laboratory at Peking University, China in 2007. He did his PhD in the OSL laboratory at the University of Hong Kong during 2010-2015, and was a postdoc in the luminescence dating laboratory at the University of Wollongong during 2015-2018. His research interests lie in methodological studies on luminescence dating and the application of novel optical dating techniques in dryland palaeoenvironmental research, geomorphological research and archaeological research. He is willing to serve as an ordinary member of the LED Steering Committee.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

Xiao Fu

I have been an OSL researcher for 15 years since I started my master's degree study in the OSL laboratory at Peking University, China in 2007. I did my PhD in the OSL laboratory at the University of Hong Kong during 2010-2015, and was a postdoc in the luminescence dating laboratory at the University of Wollongong during 2015-2018. Now I lead a new OSL laboratory at Zhejiang University, China. My research interests lie in methodological studies on luminescence dating and the application of novel optical dating techniques in dryland palaeoenvironmental research, geomorphological research and archaeological research. I have participated in the international LED conference five times, and am a member of the international scientific committee of the LED2023 conference.

I think the LED society should be a scientific-focused society whose main missions are to promote progress in trapped charge dating and to facilitate the interaction of interested people on an international level. The society should be inclusive, democratic and supportive, holds values, visions and duties widely recognised by its members, and implements broadly-agreed and workable strategies. As an international academic society, it should be able to hear the voices of each country, each lab and each member, and be able to properly incorporate these voices in its decision-making in order to benefit the entire LED community and provide a service to everyone in the LED community.

If I can be a member of the Steering Committee, the major contributions I'd like to make include (but are not limited to): 1) help the society formalise clear vision, missions, duties, principles and communication strategies in a just and democratic way; 2) actively promote and involve in the work of standardising trapped charge dating, help the LED community achieving commonly-agreed standards in terms of dating practice and data report; 3) actively assist in the organisation of the LED conference and assist in the extension of network for the LED society; 4) as a LED member from China—the country with most trapped charge dating labs and most LED researchers in the world, I have close connections with our Chinese colleagues and therefore be able to make the voices of our Chinese colleagues being heard by the society promptly and clearly, and make the society communicates with our Chinese colleagues more efficiently.



# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Dr

**Name:** Sebastian

**Surname:** Kreutzer

**Affiliation:** Institute of Geography, Ruprecht-Karl-University of Heidelberg, Germany



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**Select the position you are applying for:**

- President**
- Young researcher** (PhD degree awarded on [Click or tap to enter a date.](#))
- Ordinary member**

#### **Biography:**

ORCID: <https://orcid.org/0000-0002-0734-2199>

GoogleScholar: <https://scholar.google.de/citations?user=3HScfA8AAAAJ>

RG: <https://www.researchgate.net/profile/Sebastian-Kreutzer-2>

I am a luminescence-based geochronologist with an educational background in geography and dedication to data science. I completed my undergraduate studies in economics and geography at the University of Bayreuth in Germany. I also conducted my PhD in Bayreuth between late 2008 and early 2013 on palaeoenvironmental reconstructions of loess-palaeosol sequences using luminescence-dating methods. After a brief outside-academia excursion, I started my first post-doc at the Justus-Liebig University of Giessen (Germany), where I initially worked on an industry-university research project. In 2014, I joined the Archéosciences Bordeaux (former IRAMAT-CRP2A) laboratory in France as an expert in geochronology. During this time, in an environment of applied physics, my research focus shifted from luminescence-dating

Sebastian Kreutzer

applications to more methodological developments of luminescence-dating methods and related data analysis. I left France in 2020 to pursue a Marie-Curie Individual Fellowship at Aberystwyth University (United Kingdom) about geochronological reference data. Since May 2022, I have been back in Germany and joined the luminescence group at the Ruprecht-Karl-University of Heidelberg. In March 2023, I will start my Heisenberg research group on geochronology and data science in Heidelberg.

Hobbies supposedly relevant to my candidacy: I am a founding member of the German luminescence band "Unbleachables". We had our last concert in 2018 due to rehearsal time constraints.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

I came to luminescence dating by accident in 2008 when I was handed over a job posting printed on an a4 sheet. The notice advertised a PhD position that included some dating work. Back then, I was somewhat unaware of what I was applying for, but it sounded pretty like science fiction. Exciting!

Today and 15 years longer in the game, I am still fascinated by the enormous diversity of the subject that combines many different disciplines and is never short of new challenges.

In 2023, luminescence dating as a chronological tool has matured, and its datings are immensely in demand in geoscience and archaeology. A new study covering the Quaternary seldom comes without luminescence or electron-spin resonance ages. However, trapped-charge dating is not only about dating applications but innovative research that pushes methodological boundaries, advances knowledge, and sets new standards that resonate outside disciplines. It certainly forms its own field that calls for representation and formal standing.

I sincerely believe that a LED society is critical to gaining a voice and providing a vital umbrella as a mature and self-carrying discipline. Today chronologists concerned with trapped-charge dating are scattered across various fields. They are part of distinct associations with very different aims where geochronology, particularly luminescence and ESR dating, seems to remain in the shadows. Therefore, creating a platform that spotlights dating and related research is pivotal. Its members' scientific and international diversity will undoubtedly be a plus because it brings different mindsets that stimulate creativity.

In my view, the new society should foster international exchange, organise international meetings, coordinate workshops, award prizes, support early-career scientists, and pick up bottom-up initiatives to host debates and work groups that address, for instance, questions of community-wide workflow guidelines. In other words, it should render a supportive platform where its members feel accommodated but not patronised.

Sebastian Kreutzer

Setting up such an association is a tedious task. It requires a decisive agenda that balances different approaches and aims and acts in the interest of its majority. More importantly, it requires much leg work and transparent communication.

I present my candidacy for a position as an ordinary member of the steering committee, where I will pursue the establishment of our new society for the benefit of the entire luminescence and ESR dating community.

When I ask for your vote, I cannot promise perfection, but I pledge my dedication to the cause!

Thank you!

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

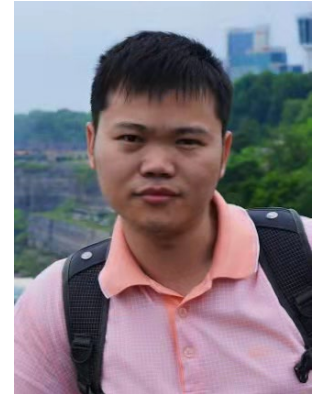
**Title:** Professor

**Name:** Bo

**Surname:** Li

**Affiliation:** University of Wollongong, Australia

**e-mail:** [bli@uow.edu.au](mailto:bli@uow.edu.au)



**Select the position you are applying for:**

**President**

**Young researcher** (PhD degree awarded on [Click or tap to enter a date.](#))

**Ordinary member**

#### **Biography:**

My luminescence journey started in 2003, when I started my PhD study at the University of Hong Kong (HKU) working with Sheng-Hua Li. I obtained my PhD degree in 2007, followed by my first post-doctoral position at HKU for 4 years (2007 – 2011). In 2012, I moved to Australia and started my second post-doctoral career by joining the luminescence dating group led by Richard Roberts and Zenobia Jacobs at the University of Wollongong (UOW). I was first funded by the Vice-Chancellor's Post-doctoral Fellowship by UOW (for 3 years), and then awarded a 4-years Future Fellowship in 2014 by the Australia Research Council. In 2018, I got the tenure position as an Associate Professor at the UOW. I was recently promoted to Professor (in 2022).

My research has been focussed on studying the luminescence behaviour of quartz and feldspar, the development of new methodologies for luminescence dating and their application to date key geologic and archaeological events. I made remarkable achievements in methodological development of luminescence dating that contribute to improving the reliability, precision and range of luminescence dating. In particular, I have been leading the chronological work for several iconic archaeological and fossil sites, including the type localities of the enigmatic

Bo Li

'Denisovans' and Homo floresiensis, which are crucial for understanding the history of human evolution. At the time of writing, I have published more than 100 peer-reviewed journal articles, one book and two edited books, of which I am the lead author of around 40%.

I have been serving the LED community in several ways. I am on the Editorial Board of the journal Quaternary Geochronology and the Associate Editor of the journal Frontiers in Earth Science. I have acted as a peer reviewer for more than a dozen high-impact journals and for other international funding bodies. I have also played an active role on various LED conference organising committees. I have been on the Scientific Advisory Committee for the several triennial international luminescence dating conferences. I am also a member of the working group to set up the International Trapped Charge Dating Association.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

I recognise the LED society to be an equitable, diverse, and inclusive community. The society should be welcoming and supportive of all members and students and commit to an ongoing culture of improvement. Its value needs to be broadly agreed upon, widely upheld and incorporated in decision-making processes. All the processes and procedures should be applied openly and consistently across the community. All members should have a voice in the society and feel like their voice is heard. I think there are several pressing tasks for the first steering committee that I would like to contribute to: 1) implement the legal registration and financial position of the society; 2) draft and formalise the vision, mission and duty of the society; 3) promote the visibility and recognition of the society globally; 4) improve and standardise the quality of dating practice, including establishing calibration standards, data reporting standards and inter-lab comparison initiatives; 5) serve the common interests, hear the voice and facilitate the needs from the people in LED community; 6) provide technical supports to students, new students and new laboratories, and explore financial supports from outside the society to help our members; 7) initiate systematic comparison with other dating techniques.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Assistant Research Professor & Manager of the Desert Research Institute Luminescence Research Lab (DRILL)

**Name:** Christina

**Surname:** Neudorf

**Affiliation:** Desert Research Institute, Nevada, USA

**e-mail:** [christina.neudorf@dri.edu](mailto:christina.neudorf@dri.edu)



**Select the position you are applying for:**

- President**
- Young researcher** (PhD degree awarded on [Click or tap to enter a date.](#))
- Ordinary member**

#### **Biography:**

I received training in luminescence dating under the supervision of Profs Richard Roberts and Zenobia Jacobs in the School of Earth and Environmental Sciences at University of Wollongong (2008-2012) and have continued research in luminescence dating and its applications in archaeology, geomorphology, and seismology for the past 11 years. From 2012 to 2018, I managed the Luminescence Dating Lab at the University of the Fraser Valley, Canada under the supervision of Dr. Olav Lian before landing my current position as Assistant Research Professor at the Desert Research Institute (DRI) in Reno, NV, where I manage the DRI Luminescence Research Lab. I have participated in international (LED) and regional (APLED) LED meetings since 2009 and I regularly review manuscripts submitted to Quaternary Geochronology, Radiation Measurements, as well as other journals that publish luminescence data.

Christina Neudorf

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

I would like to contribute to the LED Society (SLED) by helping to coordinate future regional and international meetings (we will be hosting the New World Luminescence Dating Workshop at DRI in 2024). I'm also interested in developing proposals to fuel novel research avenues in geochronology that cross interdisciplinary divides, expand student research and education opportunities, and support inter-lab calibrations and comparisons.

Ideally, the LED society should set up and financially support a website that hosts Ancient TL, features a directory of university/research institution trapped charge dating labs worldwide, as well as updates regarding community activities. In the longer term, I think it would be amazing to work toward developing an international database for luminescence data that will serve as a place for data curation, facilitate inter-lab comparisons and calibrations, and enable research into "big data" questions. I am also interested in assisting with the establishment of a regional Trapped Charge Dating Society in the Americas and helping to communicate North American interests to the wider international trapped charge dating community and vice versa.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Postdoctoral researcher

**Name:** Svenja

**Surname:** Riedesel



**Affiliation:** University of Cologne, Germany

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**Select the position you are applying for:**

- President**
- Young researcher** (PhD degree awarded on 30/03/2021)
- Ordinary member**

#### **Biography:**

I am a post-doctoral researcher and lecturer at the University of Cologne (UoC), with eight years' experience in luminescence research. My research centers on the methodological development of feldspar luminescence, with a focus on linking luminescence phenomena with mineralogical properties.

I obtained my B.A. in Geography, German and Educational Sciences and my M.Sc. in Physical Geography from the UoC in 2015 and 2017, respectively. I first started working with luminescence for my MSc dissertation, dating tsunami deposits from Japan. From September 2017 until March 2021, I was an AberDoc-funded PhD student at Aberystwyth University (AU), working under the supervision of Prof Geoff Duller, Prof Nick Pearce and Prof Helen Roberts on exploring the drivers of variations in feldspar luminescence. My PhD research at AU was supported by multiple visits to Risø (DTU), where I worked under the supervision of Dr. Mayank Jain.

Svenja Riedesel



Besides conducting my own research at the UoC, I am part of the Cologne Luminescence Laboratory (CLL), where I am actively involved in the application of quartz and feldspar luminescence dating. I currently co-supervise two PhD students, who investigate the application of luminescence methods to constrain geomorphological processes in the Atacama Desert. I further teach courses on physical geography to undergraduate and graduate students at the Institute of Geography. In November 2022, I was part of co-organising the German Luminescence and ESR Meeting (DLED). I am also a member of the RLuminescence Developer Team, having contributed multiple dose-rate related functions to the package.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

I am an early career researcher (ECR) with two years' experience post-PhD. I have been actively involved in the luminescence research community since starting my MSc research project at the University of Cologne in 2015, throughout my PhD at Aberystwyth University (2017-2021) and in my current role as post-doc and lecturer at the University of Cologne (2020 - present). So far, I have contributed to the field of luminescence through articles on fundamental feldspar luminescence, dose rates and on luminescence dating. I have gained experience in committee work as member of the British Society for Geomorphology's Postgraduate Forum (2018-2020) and as a representative of the non-professorial academic staff in board meetings of the Institute of Geography at the University of Cologne (2021-2022).

As an ECR I had the opportunity to work with researchers from different institutions and to benefit from their experience. I believe that working with different researchers is key for ECRs to develop a unique research profile and to expand their skill set. My main goal as the Young Researcher representative, would be to use seminar series and workshops to enable networking and to facilitate knowledge transfer between ECRs and more experienced researchers. Besides this, I would like to function as the link between ECRs and the Steering Committee by representing the needs and ideas of ECRs in luminescence and ESR dating.

I envision the LED society becoming a community-driven association that benefits all members of the trapped charge dating community by organising conferences and workshops, supporting ECRs, and by encouraging further laboratory intercomparisons. A society website and newsletter, in addition to continued publication of Ancient TL, would enable efficient exchange of relevant information and would thus be a useful way of connecting members of the trapped charge dating community. Establishing the LED society will help increase the visibility of our community and work in Earth Sciences and Applied Physics.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Professor

**Name:** Helen

**Surname:** Roberts

**Affiliation:** Aberystwyth University, United Kingdom



**e-mail:** [hmr@aber.ac.uk](mailto:hmr@aber.ac.uk)

#### Select the position you are applying for:

**President**

**Young researcher** (PhD degree awarded on [Click or tap to enter a date.](#))

**Ordinary member**

#### Biography:

I have been involved in luminescence research for over 30 years, and am currently Co-Director of the Aberystwyth Luminescence Research Laboratory (ALRL) in the UK, where I have been based for the last 25 years. I am Vice-President of the Stratigraphy and Geochronology Commission (SACCOM), one of the five Commissions of the International Union for Quaternary Research (INQUA) (Term of office: 2019-2023). I am a member of the International Editorial Advisory Board for the journal Earth Surface Processes and Landforms, and have just concluded the roles of External Examiner (MSc in Quaternary Science) and Chief External Examiner (School of Life Sciences and the Environment) at Royal Holloway, University of London, UK.

My research encompasses pure research into luminescence characteristics, methodological advances in luminescence techniques, equipment development, and the application of luminescence dating to address key palaeoclimatic, palaeoenvironmental, archaeological, and geomorphological questions. I have developed an extensive network of research collaborators from a range of academic disciplines, and located across the world, including China, North and South America, Europe and UK, eastern and southern Africa. I have published more than 80

Helen Roberts

peer-reviewed papers in internationally recognised, ISI journals, plus additional published items including book and monograph chapters, encyclopedia entries, field guides, and project reports, as well as contributions to creative outputs/exhibitions.

I am committed to the personal and academic development of colleagues and researchers across the full range of career stages from graduate students through to senior colleagues, delivering a range of research skills and leadership workshops and undertaking both formal and informal mentoring roles. I devised, coordinate and co-deliver the week-long intensive Continuing Professional Development course “Short Course in Luminescence Dating: Theory, Methods and Application”, which ARL has run essentially annually since 2013.

I have an active teaching and research role in the Department of Geography and Earth Sciences, Aberystwyth University, and have also chaired various University-level committees/groups, including leading the Research Ethics Panel. Since 2019 I have held a significant research leadership role with responsibility for supporting and enabling research across the whole of Aberystwyth University, reporting directly to the Vice-Chancellor and her Executive leadership team of Pro Vice-Chancellors.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

In establishing a society for our discipline there should be no limits to the long-term vision, but the reality of the situation is that in the earliest days there is much thoughtful and practical work to be done to establish the firm foundations from which the society can grow. We need to establish realistic aims and purposes that are proportionate to our stage of development as a society. We should be ambitious for our society in the longer term, but recognise that in the immediate term our focus must necessarily be on developing and documenting our mission, ethos, structures, and constitution.

To my mind, the primary responsibility of the LED Society in the earliest days is to ensure the continuity of the International Luminescence and Electron Spin Resonance Dating conference by promoting and assisting in the organisation of this meeting, including providing continuity of experience to support the local organising committees and upholding the values of the Society. In the immediate term, the Society would also provide a means of enhancing networking and communication within our discipline, making it easier to connect, share expertise and opportunities, find collaborators and mentors, develop initiatives, etc.. I see these two key functions of the Society as instrumental to maintaining and enhancing a successful and vibrant research culture within (and for) our discipline.

Values of equality, diversity and inclusion are key to my vision for the LED Society – our Society must represent, serve, consider and promote all of our community regardless of sex or gender, race, ethnicity, nationality, disability (including hidden disabilities), beliefs, career stage, caring responsibilities etc. Of equal importance are ethics and integrity in our research.

Helen Roberts

My commitment to these values in research is illustrated through my years of experience serving as Chair of Aberystwyth University Research Ethics Panel, and the University Research Ethics Committee (responsible for ethics, integrity, and governance of research). I am also committed to the professional development of colleagues at all levels in the academic community, from students to senior colleagues, and across academic, technical and research roles, and have demonstrated this through both formal and informal mentoring arrangements.

I believe I have the skills and experience to serve as President of the LED Society. I am currently (2019-2023) the elected Vice-President of the Stratigraphy and Geochronology Commission (SACCOM), one of the five commissions of the International Union for Quaternary Research (INQUA). I co-direct the Aberystwyth Luminescence Research Laboratory (ALRL) and have research interests in the development of techniques and equipment, and in the application of luminescence chronology. And I understand and value the diverse nature of research undertaken within our discipline. I also have experience in significant leadership roles within my University, giving me a skillset that I believe would be of particular benefit to the Society during its inaugural term when it must focus on the development of the foundations underpinning its operation to enable it to fulfil its immediate and longer-term goals. This experience includes:

- leading various university Task and Finish Groups involving diverse groups of colleagues (e.g. leading on the Aberystwyth University response to protect and support research and researchers during the Covid-19 pandemic, and ensure research continuity for the University and enabling laboratories/facilities to operate during lockdown),
- developing and implementing action plans (e.g. I devised the Aberystwyth University action plan that supports our commitment to the Concordat for Researcher Development – a UK initiative with targets and milestones)
- devising operational structures and terms of reference for committees/groups, and chairing meetings, etc.
- leading on complex and significant initiatives (e.g. through my University role as Director of Research Excellence and Impact, I led the entire submission from my University to the National assessment of research within the UK that takes place every 6-7 years ('REF 2021'), the results of which inform the level of research funding awarded to each individual UK university over the following 6 or 7 years).

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Professor

**Name:** Alida

**Surname:** Timar-Gabor



**Affiliation:** Babeş-Bolyai University, Cluj Napoca, Romania

**e-mail:** [alida.timar@ubbcluj.ro](mailto:alida.timar@ubbcluj.ro)

#### Select the position you are applying for:

- President**
- Young researcher** (PhD degree awarded on 28/07/2010)
- Ordinary member**

#### Biography:

I am a professor of environmental radioactivity at Faculty of Environmental Science and Engineering Babeş-Bolyai University (BBU), Cluj-Napoca, Romania, where I received my PhD in physics in 2010 and Habilitation in environmental science in 2015. I pioneered the applications of absolute dating methods for obtaining chronologies of sediments in Romania and established and currently lead the Luminescence and Electron Spin Resonance Dating Laboratories in my home institution that will be complemented with electronic microscopy in the following years. I have co-author studies with scientists from over 20 countries. I successfully supervised over a dozen PhD students so far, many of whom I have offered support to attend LED meetings. In 2015 I was awarded a European Research Council (ERC) starting grant (INTERTRAP 678106). INTERTRAP successfully carried out geochronological investigations on loess deposits over four continents and resulted in a significant improvement in our understanding of both the potential as well as the limitations of trapped charge dating methods. Currently I am the PI of an ERC consolidator grant (PROGRESS 101043356) that sets out to develop quartz-based provenance methods by the combined application of luminescence, electron spin resonance and scanning

Alida Timar-Gabor

electron microscopy based hyperspectral cathodoluminescence. For more information one can visit:

<http://icibns.institute.ubbcluj.ro/centre/environmental-radioactivity-and-nuclear-dating-centre/>

I have attended all LED meetings since the 11th International Conference on Luminescence and Electron Spin Resonance Dating held in Cologne in 2005. I am an active member in European Geosciences Union General assemblies, Solid State Dosimetry meetings and various Loessfest meetings. Recently I have been appointed in the editorial board of Global and Planetary Change Journal.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

I would like to work on strengthening the connections between the luminescence and electron spin resonance dating communities. I am one of the few practitioners that established laboratories for both methods. Having done so, I am aware of the support emerging laboratories need and I believe that the LED society should play a pivotal role in delivering this support, as well as developing standardisation procedures for common applications. To go beyond the state of the art, our field needs better connections with other disciplines such as materials science. For fundamental research and methodological advances, I strongly believe there is tremendous untapped potential in the application of other spectroscopic and microscopy techniques and we will enter an era of sub-grain investigations. Application-wise the society should make efforts for our field to gain better visibility in associations such as the EGU, AGU and so on. As a member of the equality, diversity and inclusion working group in EGU I highly value these principles that should be implemented by the LED society. Last but not least, we should do our best efforts to offer support to students and early career scientists.

# LED Society

## STEERING COMMITTEE ELECTION

### Candidate application form

**Title:** Senior researcher

**Name:** Sumiko

**Surname:** Tsukamoto

**Affiliation:** Leibniz Institute for Applied Geophysics, Hannover,  
Germany



**e-mail:** [sumiko.tsukamoto@leibniz-liag.de](mailto:sumiko.tsukamoto@leibniz-liag.de)

**Select the position you are applying for:**

**President**

**Young researcher** (PhD degree awarded on [Click or tap to enter a date.](#))

**Ordinary member**

#### **Biography:**

My first experience with ESR dating was on fossil corals from marine terraces of Ryukyu Islands for my MSc in physical geography at Tohoku University, Japan. For these ESR measurements I visited the laboratory of Motoji Ikeya. This work led me to pursue my PhD in physics at Osaka University in his group, on the ESR of carbonates and sulphates. After doing a few short-term postdocs, including working at a biophysics laboratory measuring ESR of spinach for photosynthesis research, I obtained a permanent assistant professor position at Tokyo Metropolitan University in the Department of Geography. Since Quaternary environmental change was the main research theme of our group, I sought for setting up a luminescence dating laboratory, and managed to get the first Risø reader in Japan with a beta source in 2003 (previously everyone thought it was too difficult to have a source within the reader due to legal restrictions). However, in those days the know-how in luminescence dating in Japan was seriously lacking, so I felt academically isolated. Fortunately, between 2003 and 2005 I had several opportunities to visit the luminescence laboratory at Risø, Denmark to work on red TL

Sumiko Tsukamoto

of quartz and pulsed IRSL of feldspar. In 2006 I made a big move – quitted the job in Tokyo and took up a 2-year postdoc position at Aberystwyth University to work with Geoff Duller. In 2008, I moved to the Leibniz Institute for Applied Geophysics (LIAG), Hannover, Germany as a postdoc on a large project to extend age range of luminescence dating led by Manfred Frechen and to supervise the 4 PhD students employed under the same project. I started an ESR laboratory at LIAG in 2012 and obtained a permanent scientist position in 2013. Since 2017, I am one of the invited members of the steering committee for the International LED Conferences. I am a DLED representative for the LED Society working group and Chair for the international LED working group since 2019. In 2018 I received an academic prize from the Japanese Quaternary Association for my contribution to the luminescence and ESR dating techniques.

**Motivation:** *(Please describe your vision for the LED Society, the contribution you would like to make, etc.)*

For the last 3 years, I have been acting as the chair of a working group that was set up to create the framework for a new professional society to represent the LED community worldwide, replacing an informal committee that has organised the triannual international conference over the last 40 years. Together with other members of the working group, we have worked intensively to fulfil all necessary steps that will allow this society to be accepted internationally. I thus feel that I am well placed to become President of this new society.

If elected President, I would devote my time and energy to finalise the establishment of a thriving and dynamic professional society, and raising awareness and reliability of the dating techniques. My experience over 25 years of applying both luminescence and ESR dating in different parts of the world, and carrying out fundamental research into the mechanisms giving rise to the signals in a range of minerals, provides me with the appropriate background for promotion of these techniques.

My supervision of students and postdoctoral workers has provided me with the experience and insight to ensure that these members of the new society will benefit greatly from, and contribute to, the new society.