**COVID-19 - UKRI Extension Request Application Form**

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| 1. Supervisor and Student details | |
| Supervisor Name | Dr. Yu Chen |
| Student Name | Milan Adelt |
| Department | Physics |
| Student registration number | 201760785 |
| Student email | [Milan.adelt@strath.ac.uk](mailto:Milan.adelt@strath.ac.uk), milan.adelt@gmail.com |

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| 2. UKRI Studentship details | |
| Doctoral start and end dates | 1.10.2017 – 31.3.2021 |
| Research Council | EPSRC |
| Scheme (e.g. DTP, ICASE, NPIF) | DTP REA |
| UKRI funding level (as a percentage) | 75% |
| Extension co-funding provided (cash contribution and funding source) | 25% cash contribution, Milan Adelt |

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| 4. Extension duration Please enter the number of months extension requested (up to 6 months). | |
| Number of months | 6 |

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| 5. Extension Justification Please detail how COVID-19 has impacted on the research project and your student's progress. In order to fully justify the requirement for an extension and the duration requested above, include details of (i) the levels of laboratory-based or other practical components required within the student’s research endeavours; (ii) the stage the student had reached in their research programme at the point of closedown; and (iii) any additional relevant information, including individual circumstances (up to 500 words in total).  *NB* Please note that students are not required to disclose any personal or sensitive data to their supervisors or as part of this form-based submission. Should your student not wish to disclose personal issues or information, they can contact a professional services staff member within the PGR Funding Team to communicate or discuss any matters in confidence: [rkes-res@strath.ac.uk](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Foutlook.office.com%2Fmail%2Fc.mcavoy%40strath.ac.uk%2Finbox%2Fid%2Frkes-res%40strath.ac.uk&data=02%7C01%7Cw.kerr%40strath.ac.uk%7Cc078bd68367645ce8e6808d7eab9c2da%7C631e0763153347eba5cd0457bee5944e%7C0%7C0%7C637235955868714358&sdata=qJVv8tatzUX1ZGuXNEqXGcJ%2F3i%2B2TgZ7074yKvzDcEI%3D&reserved=0" \t "_blank" \o "Original URL: https://outlook.office.com/mail/c.mcavoy@strath.ac.uk/inbox/id/rkes-res@strath.ac.uk. Click or tap if you trust this link.). Please ensure that your student is aware of this provision. |
| Milan’s project aims to investigate the surface plasmon effect on fluorescent emission and catalytic properties for enhanced biological sensing and photocatalysis efficiency. This involves a systematic experimental study on the chemical synthesis and selective surface modifications of gold nanorods with polymeric materials and fluorescent dyes for creating bespoke nanostructures such as dumbbells with various coating morphologies and investigating the effect of the plasmon field generated by such gold nanorods. So far he has successfully synthesized anisotropic silica-coated gold nanorods with a high yield and disclosed the influence of growth process on the anisotropic coating. This result has been presented at an international conference (Applied Nanotechnology and Nanoscience International Conference – ANNIC2019, France, 2019) and several local conferences, as well generating a manuscript for publication. Milan has been investigating the assembly of fluorescent molecules to the silica-coated gold nanorods through various linkage strategies and performing fluorescence study before the outbreak of Covid-19.  Milan’s project is very much lab-based experimental research that has been stopped since the University closure. Moreover, the long period of closedown will cause the degradation of samples. Preparation of a new batch of samples will take about 6 weeks for optimizing the growth and characterisation, causing further delay in completing his project. The syntheses Milan performs are batch sensitive due to variability in chemicals between batches. Indeed just before the University closed he was grappling for some weeks with trying to reproduce previous results with a new batch of the surfactant CTAB. The progress made was in vane due to COVID-19 so he will have to start from scratch again.  Milan is an excellent and dedicated student who will most certainly make the most of an extension to his studies and was until the closure on course to produce high-quality publications. Indeed the Photophysics Laboratory in which he works was fully operational at the time of closure so he should be able to get started quickly on his return.  We thus hope to apply for an extension of the studentship for 6 months to provide the essential financial support to enable him to carry out the planned experimental study and complete the PhD programme by September 2021. We shall be grateful for your kind consideration. |

**Please return the completed for to** [doctoral-covid19-enquiries@strath.ac.uk](mailto:doctoral-covid19-enquiries@strath.ac.uk" \t "_blank) **by 12pm on Wednesday 13th May 2020**