**School of Computer Science Risk Assessment**

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| **Activity being**  **assessed:** | Resilent Cyberphysical Systems General Lab Risk Assessment | | | **Ref.** |  |
| **Location:** | S2|02 B013 | **Assessment**  **Date:** | 14th Dec 2024 | **Review date:** |  |

General hazards and risks from them found within the RCPS laboratory. Robert Piloty building

Room B013

**Description of activity**

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| **Hazards** | **What Harm might occur, and to whom?** | **Existing control measures** | **Risk rating**  **L S RR** | | | **Additional control measures** | **Residual risk**  **L S RR** | | |
| Fire/smoke inhalation. | Risk of death or serious injuries from fire/smoke inhalation to all building occupants. | Prior to working within the lab an induction process must be completed by all lab users. During this induction, lab users are informed of the emergency procedures in the result of a fire, fire evacuation routes, assembly points, closest fire extinguisher to their location. A systematic process is in place to test the fire alarm system and an annual evacuation test takes place. All staff and postgraduates are required to take online fire training annually.  Fire marshals have been appointed | 1 | 5 | **5** | none | 1 | 5 | **5** |
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|  |  | to assist people in the event of an alarm they also prevent people from reentering the building if an alarm occurs. Special measures are in place to assist people with disabilities to evacuate the building safely. |  |  |  |  |  |  |  |
| Untrained/inexperienced users of equipment/test rigs etc. | Staff, students, visitors etc are at an increased risk of injury when working with equipment, test rigs, performing experiments etc. | Prior to undertaking any work the following procedures MUST be undertaken. All work processes MUST be risk assessed and the findings recorded. To commence work the following paperwork if applicable MUST be in place. 1, An approved risk assessment with an accompanying user signing sheet. 2, A comprehensive SOP (standard operating procedure) document. 3, You Must be trained by an authorized competent person and the details recorded on a record of training form. 4, Rig user ID form, this MUST be filled in and displayed at point of work. | 1 | 3 | **3** |  | 1 | 3 | **3** |
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| Risk of injury from the use of chemicals/substances. | Irritation, burns, asphyxiation caused by the use of chemicals/substances to any lab users (staff, students, visitors etc.) | Prior to working within the lab an induction process must be completed by all lab users. During this induction, lab users are informed of the processes involved when dealing with chemicals/substances. All substances should be stored safely in suitable containers in the chemical storage cupboards. MSDS sheets should be readily available.  CoSHH forms MUST be completed before using any chemicals/substances in the lab. | 1 | 3 | **3** | none | 1 | 2 | **2** |
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|  |  | PPE MUST be used where specified according to the chemicals MSDS sheet and CoSHH form. Disposal should be carried out following correct University procedures and in accordance with the instruction of the relevant MSDS sheet.  Anyone working with or transporting chemicals/substances MUST complete the online CoSHH training. The relevant CoSHH form must be available in the lab H&S Folder. Old or excessive amounts of chemicals/substances must not be stored. |  |  |  |  |  |  |  |
| Electric shock/Electrocution caused by use of faulty/damaged electrical equipment or cabling. | Electric shock/Electrocution to Lab Users, Visitors, Staff. | Prior to working within the lab an induction process must be completed by all lab users. During this induction, lab users are informed that equipment must display an  in-date PAT test sticker to show that the equipment has passed electrical safety tests. The equipment/cables should be visually inspected prior to use and found to be free of defects/damage. If any form of damage to the equipment/cabling is discovered during the user's initial visual inspection, it must be reported directly to the technician in charge of the lab, it will then be removed from service. A systematic process is in place to PAT test all electrical equipment. Students, staff are informed that any equipment they bring from home (mobile phone, laptop chargers etc) to use within the lab must also be PAT tested, this can be arranged by contact the technical support team. | 1 | 5 | **5** | Continue to improve the culture of reporting faulty equipment so that it can be removed from service. | 1 | 5 | **5** |
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| Incorrect Manual Handling. | Cuts, bruises, sprains, tears, small fractures, muscle strain, musculoskeletal problems could all occur to staff, students, visitors etc as a result of incorrect manual handling. | It is recommended that students, staff, visitors etc do not lift/move loads that they are not personally comfortable with. Prior to working within the lab Postgraduate students/Staff must have completed the mandatory online training for manual handling. This is covered within the lab induction and students/Staff are given a link to the training. No items are to be stored on top of cupboards/cabinets above head height. If you suspect an items weight is to heavy and you feel you are not comfortable lifting/moving the item contact the relevant technician who will assist. | 1 | 3 | **3** | Contact the School safety officer for further help or guidance with manual handling. | 1 | 3 | **3** |
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| Slips, trips and falls. | Cuts, bruises, sprains, tears, small fractures, muscle strain could all occur to staff, students, visitors etc as a result of Slips, trips and falls. | Work areas and walkways must remain clear and tidy at all times. Routine lab inspections are carried out periodically and housekeeping is checked and assessed. If work is to be carried out within this area that would impact on other users then the area should be cordoned off and affected people informed. Any water/substance that's spilled should be cleaned up immediately using any appropriate methods that are detailed in the relevant MSDS or CoSHH Form for that particular substance. No unnecessary storing of equipment, materials etc. | 1 | 3 | **3** | Maintain a positive culture towards housekeeping. | 1 | 2 | **2** |
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| Lone and or Out of Hours working. | Staff, students, visitors etc becoming isolated after injury/illness resulting in a possible increased severity of injury/illness due to not being able to contact assistance. | Avoid lone / Out of Hours working where possible. If lone working cannot be avoided, relevant risk assessments should be produced to acknowledge the aspect of 'lone | 1 | 3 | **3** | Supervisor should ascertain if there are any existing medical conditions that may affect the decision to approve lone working. | 1 | 3 | **3** |
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|  |  | working'. This must be approved before starting work. If you intend to carry out a risk assessment to cover lone working, you must include a 'buddy system' in the assessment, this involves getting a colleague to check on your welfare every hour (phone calls are acceptable). If an attempt to contact the lone worker fails, someone should physically check on the lone worker to ensure their welfare. |  |  |  |  |  |  |  |
| Alcohol and/or substances. | Staff, students, visitors etc are at a significantly increased risk of injury to themselves or others if working within labs whilst under the influence of Alcohol and/or substances. | Prior to working within the lab an induction process must be completed by all lab users. During this induction, lab users are informed that they are not permitted to be in the department if under the influence of drugs/alcohol. Any lab users who suspect another lab user of being under the influence can report it anonymously and confidentially to the technician in charge of the lab. | 1 | 3 | **3** |  | 1 | 3 | **3** |
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| Working in lab with pre-existing health conditions/disability's. | Staff, students, visitors etc could be at an increased risk of harm when working within labs if there are any pre-existing health conditions/disability's. Emergency response or evacuation may be affected. | If required a specific risk assessment must be carried out to facilitate your safe working within labs, if you feel this is relevant then please let your supervisor/DSO know. | 1 | 2 | **2** |  | 1 | 2 | **2** |
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| Working in lab whilst Pregnant. | Staff, students, visitors etc could be at a potentially increased risk when working within labs whilst pregnant. | A specific risk assessment must be carried out to facilitate your safe working within labs, for pregnant workers, if you feel this is relevant then please let your supervisor/DSO know. | 2 | 4 | **8** | Workload and nature of tasks will need to be flexible to suit the individual through their pregnancy term and a new mother. | 2 | 3 | **6** |
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Key to risk ratings

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| **Severity (S)** | **Guide Description** |
| 5 | Catastrophic - fatality, catastrophic damage |
| 4 | Major - significant injury or property damage, hospitalisation |
| 3 | Moderate - injury requiring further treatment, lost time |
| 2 | Minor - first aid injury, no lost time |
| 1 | Very minor - insignificant injury |

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| **Likelihood (L)** | **Guide Description** |
| 5 | Very likely/imminent - certain to happen |
| 4 | Probable - a strong possibility of it happening |
| 3 | Possible - it may have happened before |
| 2 | Unlikely - could happen but unusual |
| 1 | Rare - highly unlikely to occur |

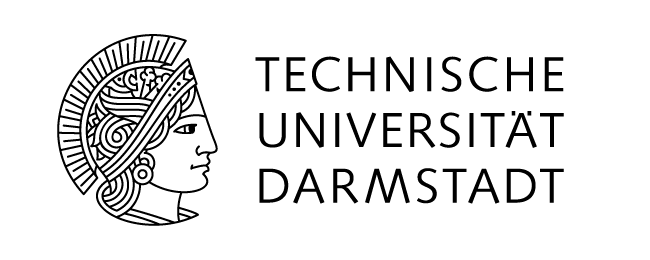
Severity (S)

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| **Risk Rating (RR)** | **Action** |
| **High Risk** | Stop the task/activity until controls can be put into place to reduce the risk to an acceptable level. |
| **Medium Risk** | Determine if further safety precautions are required to reduce risk to as low as is reasonable practicable. |
| **Low Risk** | No further action, keep under review. |

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| **5** | **5** | **10** | **15** | **20** | **25** |
| **4** | **4** | **8** | **12** | **16** | **20** |
| **3** | **3** | **6** | **9** | **12** | **15** |
| **2** | **2** | **4** | **6** | **8** | **10** |
| **1** | **1** | **2** | **3** | **4** | **5** |

Likelihood (L)

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| **Assessment**  **Created by:** | Roderich Groß. |
| **Department:** | School of Computer Science. |
| **Persons**  **consulted:** | A Whelpton. |

 **School of Computer Science Risk Assessment**

*Resilent Cyberphysical Systems General Lab Risk Assessment*

*I have read and understand the hazards involved with the risk assessment 'Resilent Cyberphysical Systems General Lab Risk Assessment', and agree to* work in accordance with the working practices defined in that assessment:

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| **Signature** | **NAME in block capitals** | **Date** |
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*Keep this list of signatories secure. A printed copy of the Assessment must be readily available to the signatories, so they can check expected work practices.*