



Pranav Sudersan

PhD student

- Indian
- December 8, 1992
- #1308, Isaac-Fulda-Allee 4, 55124 Mainz, Germany
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Social Network

- Overleaf Template Link
- Github Project Page Link

Interests

- Bio-inspiration
- Materials and interfacial science
- Human-Robot Interaction
- Applied Intelligence
- Embedded Systems Design

Skills

Programming:

- Python
- LABVIEW
- MATLAB

Tools:

- OpenCV, PCL
- TensorFlow
- Keras

CAD Tools:

- CATIA
- MSC ADAMS

Robot Simulators:

Education

- 2019 – ongoing **Ph.D. in Chemistry** Max Planck Graduate Center, Mainz
Title: Understanding reversible underwater adhesion in terrestrial ladybug beetles
Supervisors: Prof. Dr. Hans-Jürgen Butt, Prof. Dr. Eduard Arzt
Projects:
 - In-vivo underwater adhesion measurements on insect legs
 - Surface tension measurement of insect secretions using AFM
 - Theoretical modelling of the mechanism of reversible adhesion
 - Adhesion setup
 - AFM
 - Surface Evolver
 - Image analysis
- 2010 – 2015 **M.Tech and B.Tech in Chemical Engineering** IIT Bombay, India
Title: Preparation and characterization of sugar-oil microemulsion glasses
Supervisors: Prof. Jyoti R. Seth
Projects:
 - Phase study of solid microemulsions based on sugar-oil mixtures
 - Structural characterization by SEM, SANS, DSC and Rheology
 - Material science
 - Experimental design

Working Experience

- 2018 **Project Assistant** Inst. of Chemical Tech., India
Efficiency of soap formulations using dynamic interfacial tension
 - Interfacial science
 - Data collection
- 2016 – 2018 **Research Associate** IIT Bombay, India
Synthesize Interpenetrating Polymer Network (IPN) materials
Modelled unusual self-assembly behaviour of polyelectrolytes
 - Experimental design
 - Modelling
 - MATLAB
- 2015 – 2016 **Business Data Analyst** HSBC, India
Automated workflow to identify regulatory anomalies in sales
 - Statistical analysis
 - Team management

Publications

- 2022 **Pranav Sudersan**, Michael Kappl; Mechanisms of detachment in fibrillar adhesive systems. *Journal of Theoretical Biology* 2022; doi: 10.1016/j.jtbi.2022.111315
- 2021 **Pranav Sudersan**, Michael Kappl, Bat-El Pinchasik, Hans-Jürgen Butt, Thomas Endlein; Wetting of the tarsal adhesive fluid determines underwater adhesion in ladybird beetles. *Journal of Experimental Biology* 15 October 2021; 224 (20): jeb242852. doi: 10.1242/jeb.242852
- under review Jiayu Song, Youmin Hou, **Pranav Sudersan**, Cheuk Wing Edmond Lam, Dimos Poulikakos, Hans-Jürgen Butt, King Lun Yeung; Inhibition of Condensation-Induced Wetting Transition by Nano-Hierarchical Surfaces

Awards

- 2010 – now Panda of the Year Panda World Forum
- 2005 – now Face of World Wide Fund for Nature WWF
- 2000 Winner of Bamboo Sprouts Eating Contest Bamboo Society

Extra-Curricular Activities

- Relaxing Master the fine art of relaxing everywhere
- Music Playing the bamboo flute in the 1st Panda Orchestra
- Education Teaching young pandas to be more panda-like

Pranav Sudersan

PhD student

About Me

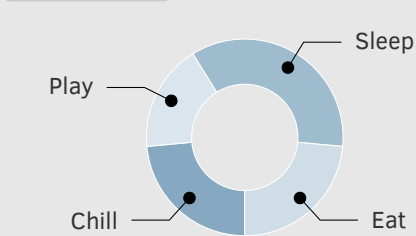
The giant panda is a terrestrial animal and primarily spends its life roaming and feeding in the bamboo forests of the Qinling Mountains and in the hilly province of Sichuan.

Diagrams

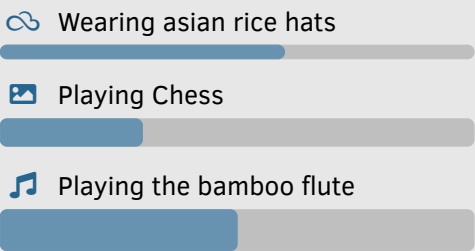
Bubble Diagrams with proper overflow protection for labels





Wheel Chart



Barskills



Memberships

-  PandaScience.net
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section

Subsection

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cvitem

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| date | Description Some longer and more detailed description, that takes two lines of space instead of only one. | location |

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cvpubitem

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| Year | Publication title that is spanning over multiple lines and still does not look too bad <i>Authors</i> Journal |