Android App Development (m/f/x) @ Cambridge-led ALPS Project

This IDP posting is embedded in the research project on 'Automated Licensing Payment Systems' (ALPS) led by Cambridge University's Institute for Manufacturing (IfM) and kindly supported by Research England via the Pitch-In project.

IDP Facts

Name	Tags
Location	Remote
Time	ASAP, Winter Term
Task Area	Android App Dev
Employment Type	IDP

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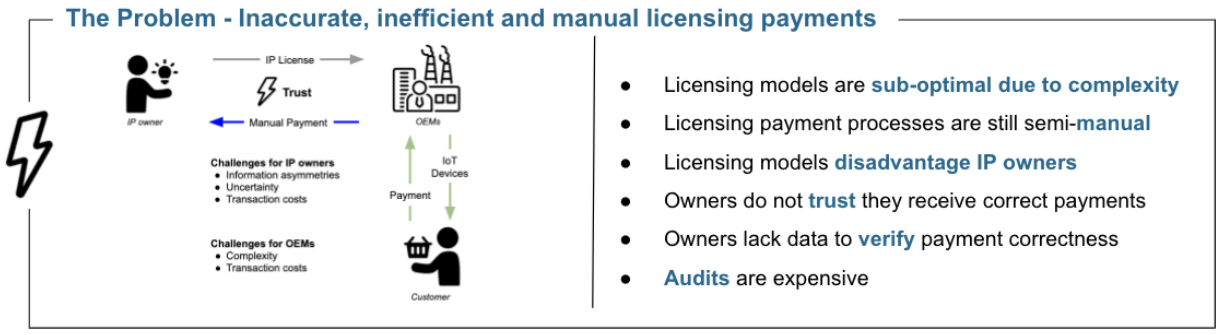
ALPS' Mission

The goal of Automated Licensing Payment Systems (ALPS) is to enhance accuracy and trust and reduce uncertainty as well as overall transaction costs in the licensing of Intellectual Property (IP). The systems will enable novel business models and contribute to fairer remuneration of the IP owners for the value their assets generate in the industry.

The problem that we are solving

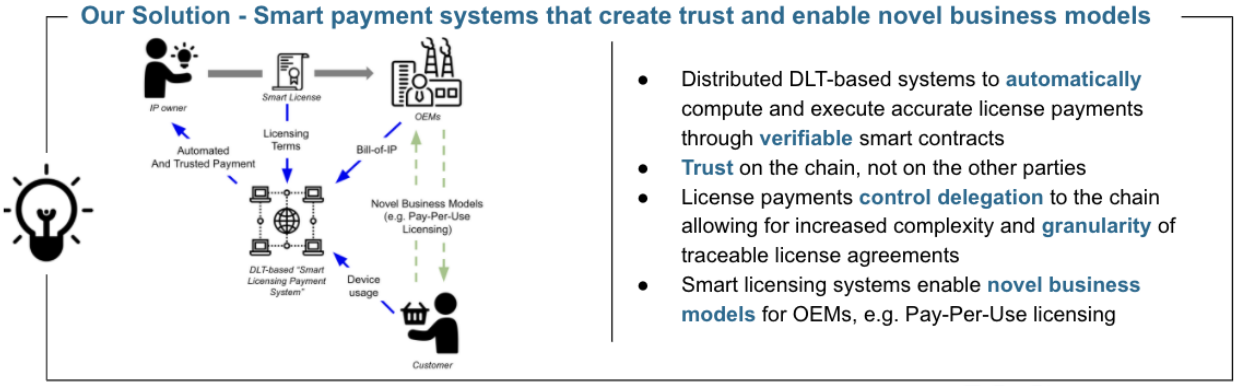
"*Most IoT devices include patented technologies licensed from different owners. The number of IoT devices is expected to grow to 75 billion in 2025.*" *(Statista, 2016)*



As the digital economy is becoming more connected, collaborative and distributed, innovations incorporate increasingly complex sets of hardware and software technologies. These technologies often build on Intellectual Property (IP) from multiple originators, creating a complex 'licensing web' that licensees, such as Original Equipment Manufacturer (OEMs) have to operate. As no digital infrastructure exists to settle IP licensing payments, they are mostly carried out (semi-)manually.

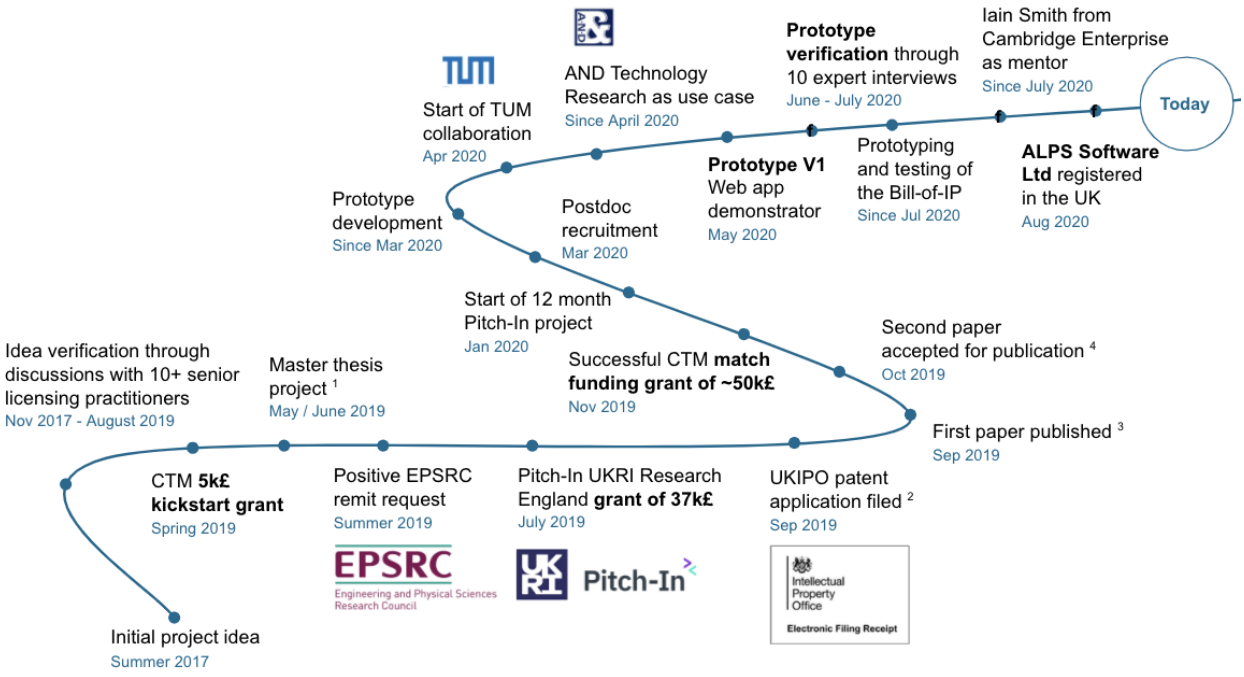
The solution we are building

We are building an automated licensing payment system (ALPS), a digital infrastructure that enables the automated calculation, execution and verification of accurate payments from licensees and their customers to licensors.



The status quo of ALPS

🛠️ Apart from publishing an article on ALPS, filing a patent and raising funds, we have developed an initial prototype in the form of a DLT-based simulator. To take the next steps, we plan to supply the simulator with real, sensor-tracking input data.



What you'll do

👨‍🎓 Here you come in to develop an Android app which tracks the activation and usage of certain sensors e.g. Bluetooth, Wifi, etc. and sends this usage data to our simulated DLT. This will enable more thorough and realistic testing scenarios.

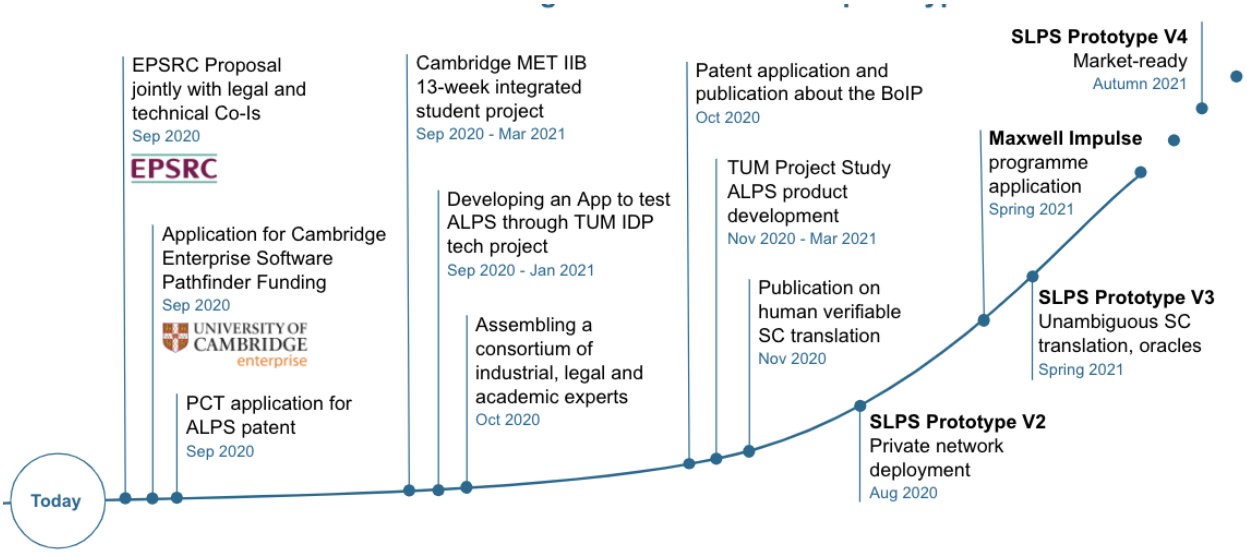
Tasks:

- Develop an Android App from start to finish
- The App tracks the usage / activation counts of specific modules e.g. Bluetooth, Wifi, Screen activation and more.
- This data is used as input data for our DLT simulation based on which licensing payments are computed.
- Assuring high code quality and test coverage from start to finish

What you should bring

- Previous experience in developing mobile application, ideally Android
- Ability to own and deliver objectives and results
- Strong communication and organisational skills

ALPS Roadmap 2020-2021



The team behind ALPS

We are a tech-first, mission-driven team of scholars, students and industry experts combining expertise from Technology Management, Innovation and Intellectual Property (IP) as well as from Computer Science for Distributed Ledger Technology and Data Science.

Project lead

Dr Frank Tietze Lecturer for Technology and Innovation Management at the University's Engineering Department heading the Innovation and Intellectual Property Management (IIPM) Lab. He is Principal Investigator in various EU, EPSRC and ESCR funded projects. Frank is Editor at IEEE Transactions on Engineering Management and Editorial Board Member of World Patent Information.

Technical advisor

Prof Jon Crowcroft is the Marconi Professor of Networked Systems in the University's Computer Lab. He is a Fellow of the Royal Society and the British Computer Society and serves as Principal Investigator in various EU and EPSRC funded projects.

Technical lead

Dr Damiano Di Francesco Maesa is the project's computer scientist and software developer. Damiano is a Post Doctoral Research Associate at IIPM Lab and the University's Computer Lab. He specializes in novel applications of blockchain and distributed ledger technologies.

Use case lead

Julius Theye manages the collaboration with AND Technology Research Ltd. and conceptualises the Bill-of-IP as part of his Master's thesis. Julius is a final year student in M.Sc. Technology & Management at the Technical University of Munich.

Data advisor

Felix Sanchez-Garcia serves as the team's data advisor. Felix has over 10 years of commercial experience in Data Science and software development. He gained his M.Sc. and PhD in Computer Science from Columbia University NYC as a Fulbright scholar.

👉 Reach out

Drop us some lines along with your CV:

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References

- **Tietze, F. and O. Granstrand (2019)**. *Enabling the digital economy - distributed ledger technologies for automating IP licensing payments.* Managing Innovation in a Global and Digital World - Meeting Societal

Challenges and Enhancing Competitiveness. R. Tiwari and S. Buse, Springer Gabler

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