



## 2021 Opposition/Validity/Novelty Search – Engineering

### INSTRUCTIONS

Prepare and conduct a search. Try as much as possible to describe the steps you take to acquaint yourself with the topic of such a search. Describe how you find and use the necessary information in devising the search query. Your reasons for NOT including certain aspects may also be of importance. Keep a record (history) of the search you conduct in the database of your choice. Explain any factors other than the technical topic that will have an effect on the search. Be as detailed as possible in describing your approach to the search including devising the search strategy, the choices you make in devising the strategy, the database syntax you use and what it means, the results you pick.

The majority of the marks will be awarded for the explanation you provide about devising and finalising your search strategy. Do not stop if you find a seemingly perfect hit, as by finishing early you might not earn enough marks to pass. There is no perfect set of results.

You can upload multiple files, but please be aware that you cannot upload more than a maximum of 10 Megabytes for all uploaded files in total. Should the total size of all your files exceed this limit, try to compress the files so that the total of all of the files to be uploaded is under 10 MB (please note zip files cannot be uploaded). Please make sure that your file is compatible with Word / Excel 2007 up to and including Office 365. For example, using Open (Libre-)Office there are options to save such a file as e.g. “Word 2007 – 365 (docx)”. There are similar options in other text processing / spreadsheet programmes. In the event that you experience difficulty in uploading your files, but only then, you may send them by email to exam@qipip.org with an explanation of the problem **WITHIN the allotted time**.

### CASE STUDY

[The letters A, B, C and D indicate the variations in this case study for the different time zone regions in which the candidates sat for the exam.]

Your customer has developed a prototype system for assistance of communication during  
A&B: soccer matches.

C: rugby matches

D: American football matches

They would like to know whether or not it is worth applying for a patent to protect their invention.

You have discussed their system with them and been commissioned to carry out an investigation into its patentability. The following is a summary describing the system they have outlined to you and a potential claim set for a patent application.

### **Description**

A system for assistance of A&B: footballers, C: rugby players, D: American footballers comprises transmitters integrated with conventional signalling devices such as a referee’s whistle or linesman’s flag.

When the referee or linesman blows his whistle or raises his flag the transmitter issues a wireless signal.

In the case of a whistle, the blowing of the whistle may be detected by a microphone, and in the case of a flag the raising of the flag may be detected using a sensor that detects the orientation of the flagpole.

The wireless signal may be a radio frequency signal.

One or more receivers which can be worn by players can respond to transmissions from the transmitters by signalling to the players in a way they are able to perceive. For example, the signal may be a vibration, a flashing light or an electric shock.

The invention is particularly useful for the hard of hearing but is not limited to such applications.

### **Claims**

1. A system comprising one or more transmitter units and one or more receiver units wherein the transmitters can signal to the receivers by means of wireless transmission.
2. A system as defined in claim 1 wherein the wireless transmission is a radio frequency signal.
3. A system as defined in any preceding claim wherein the one or more receiver units are associated with a person.
4. A system as defined in claim 3 wherein the person is a A&B: footballer, C: rugby player, D: American football player.
5. A system as defined in claims 3 or 4 wherein the one or more receiver units provide an output perceivable by the person upon receipt of a transmission from the one or more transmitter units.
6. A system as defined in any preceding claim in which a first one of the one or more transmitter units is integrated into a A&B: football, C: rugby, D: American football referee's whistle and transmits a signal in response to sensing the whistle being blown.
7. A system as defined in claim 6 wherein a second one of the one or more transmitter units is integrated into a A&B: football, C: rugby, D: American football linesman's flag and transmits a signal in response to sensing the flag being raised.