

Entry 1: Pawel Biernacki (pawel.f.biernacki@gmail.com), Vampisoft

Name of System: Perkun

Description of system: A planning algorithm in games with stochastic environment and no opponents. Problem solving system based on a new AI algorithm which introduces so-called hidden variables.

Entry 2: Elena Khmeleva, Sheffield Hallam University, now at Accenture
Adrian Hopgood (adrian.hopgood@port.ac.uk), University of Portsmouth

Name of System: SECSI (System for Evolutionary Crew Scheduling with Intelligence)

Description of system: SECSI optimally schedules the train crew in the rail-freight industry. As the crew constitute 20–25% of the operating costs, an efficient schedule can save millions of pounds. Drivers need to be assigned to a number of train trips in accordance with complex industrial and governmental regulations. The scale of the challenge escalates due to the large quantity of train trips, wide geographical span and significant number of restrictions. A driver often has to travel as a passenger, sometimes in a taxi, to connect trips that finish and start at different locations. SECSI is an intelligent system with a genetic algorithm at its core. It outperforms a human expert in both the quality of the schedule and its speed of production.

Entry 3: Carl James-Reynolds (c.james-reynolds@mdx.ac.uk), Middlesex University

Name of System: Mindfulness Mirror

Description of system: This is an infinity mirror that assists the user in developing a state of mindfulness. The system was designed by Carl James-Reynolds and Ed Currie.

Entry 4: Wish Wang (wish.chun@gmail.com), Taipei American School

Name of System: Rock, Paper and Scissors using Machine Learning

Description of system: This is an AI game simulator based on the classic game of "rock, paper and scissors". The user needs to prepare his/her gesture (whether rock, paper, or scissors) and then will need to click on the start button to find the AI's reaction. Then, the person needs to click on his current gesture (whether rock, paper, or scissors) and prepare for his/her next gesture to find out what the AI's reaction is. After learning the person's behaviour/pattern for a couple of times, the AI will know what the person will choose and the AI will mostly win the following rounds (with the person) while playing the game.

Entry 5: Armelle Guillet (aguillet@amplifylife.com), Tim Russell and Andrew Lea, Amplify Life

Name of System: Amplify Live Life Loud

Description of system: Amplify Life is a personal challenge and coaching app, created with the help of in-house nutritionists, fitness experts, athletes and Olympians and assisted by AI. Whether the user is a first-time runner, training for a marathon or wants to cycle further, Amplify Life offers the expertise needed to reach those personal health goals. With targeted training plans for UK sporting events as well as fitness challenges, Amplify will help achieve those sporting ambitions.
