

# (12) United States Patent Singh et al.

## (54) SENSITIVITY TUNING IN WIRELESS **NETWORKS**

(71) Applicant: Nokia Technologies Oy, Espoo (FI)

(72) Inventors: Sarabjot Singh, Berkeley, CA (US);

Sayantan Choudhury, Berkeley, CA (US); Enrico-Henrik Rantala, Berkeley, CA (US); Namyoon Lee, Walnut Creek, CA (US); Esa Juhani Tuomaala, El Cerrito, CA (US)

(73) Assignee: Nokia Technologies Oy, Espoo (FI)

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See application file for complete search history.

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Primary Examiner — Jamal Javaid Assistant Examiner — Rosene Clark (74) Attorney, Agent, or Firm — Banner & Witcoff, Ltd.

# ABSTRACT

An access point in a random access wireless network is presented, which performs medium access control for transmissions from a plurality of stations to the access point using a carrier sense multiple access protocol. The CSMA protocol is based on the access point having a variable sensitivity level to detecting other transmissions on a wireless channel in order to avoid data collisions. In a dense network environment, the sensitivity level can be reduced to avoid detecting transmissions to other access points, and thus improve area efficiency.

### 17 Claims, 11 Drawing Sheets

