CLAIMS

1. Method for detecting unmanned micro-aircraft (UAV) at low altitude, including recording their acoustic signals caused by mechanical vibrations of electric motors and the rotation of propellers, characterized in that
   - In addition, an optical signal is recorded in the visible (0.4 ... 0.76 µm) and/or infrared (0.76 µm ... 1 mm) range of the UAVs,
   - the occurrence of a parametric modulation of the optical signal caused by these same mechanical vibrations is detected

   whereby a correlation of acoustic and optical signals of the UAV is registered, the presence of which indicates the detection of the UAV.

2. Method according to claim 1, characterized in that the correlation takes place in a (low) frequency range caused by the mechanical vibrations of electric motors and the rotation of propellers of UAVs.

3. Method according to claim 1 or 2, characterized in that additionally an active radar detection in the millimeter range is provided, the wavelength of which corresponds to the wavelength of a resonance absorption in the atmosphere, preferably in the range of 1 mm to 15 mm, within a given (flight) altitude range of drones, preferably between 5 m and 50 m.

4. Method according to claim 1, 2 or 3, characterized in that it additionally comprises an active acoustic detection which operates at a wavelength of resonance scattering of acoustic waves on unmanned aerial vehicles in the frequency range of 10 kHz...20 kHz.

5. Method according to claims 1, 2 or 3, characterized in that the acoustic signal of the drone is received at low altitude by a passive acoustic sensor (2), preferably simultaneously with the modulated optical signal of the drone via an optical sensor (4), wherein the low-frequency signals from the outputs of both sensors are fed to the inputs of a correlometer (3), wherein the signal from the output of the correlometer (7) can be fed to the input of a coincidence fixing circuit (7) and additionally, preferably simultaneously,

signals from the active acoustic sensor (5) and from a radar sensor (6) are fed to the other inputs of the coincidence fixing circuit (7).

6. Device (1) for detecting unmanned micro-aircraft (UAV) in low-level flight, comprising
   - a passive acoustic sensor (2),
   - a passive optical sensor (4), and
   - a correlometer (3), and
   - an active acoustic sensor (5) adjusted to operate at a wavelength of resonance scattering of acoustic waves on UAVs in the frequency range of 10...20 kHz, and
   - an active radar sensor (6) operating at a wavelength that matches the wavelength of resonance absorption of the signal in the atmosphere in the range of 1 mm...15 mm and detects UAVs at flight altitudes of 5 m...50 m.

7. Device according to claim 6, which includes a coincidence circuit (7) whose three inputs are connected to the outputs of the correlometer and the active acoustic and radar sensors.