



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
02.06.2010 Bulletin 2010/22

(51) Int Cl.:
G08G 1/017 (2006.01)

(21) Application number: **08404001.3**

(22) Date of filing: **28.11.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA MK RS

(71) Applicant: **Isbak Istanbul Ulasim Haberlesme ve Guvenlik**
Teknolojileri San . ve TIC . A . S .
Istanbul (TR)

(72) Inventors:
• **Alyürük, Muhammed**
Istanbul (TR)

• **Yazici, Selami**
Istanbul (TR)
• **Yilmaz, Mahmut**
Istanbul (TR)

(74) Representative: **Basalan, Ahmet**
Basalan Patent & Trade Mark Industrial
Property Services Consultancy Limited
Company
Giz 2000 Plaza Ayazaga Yolu
No: 7/Kat. 12
34398 Maslak - Istanbul (TR)

(54) **Mobile electronic control system**

(57) The invention relates to the mobile electronic control system (Mobile ECS), which is designed in order to detect violations in areas that are impossible to be monitored continuously and that are out of the fixed traffic violation detection system spots, and comprises a system comprising a portable wireless camera system, GPRS Router, industrial computer, video-camera and

keyboard, Mobile DVR, and Roughmeter located in vehicles comprising in the interior design a rear and front section , a plexy glass and moving mechanism, an electric sunroof , accumulators comprising of a charging dynamo, a voltage regulator and an alternator, leather furnishing and cloth, system insurance panel, MDF Cabinet and desks, rear independent air conditioner, and a sliding rear door window.

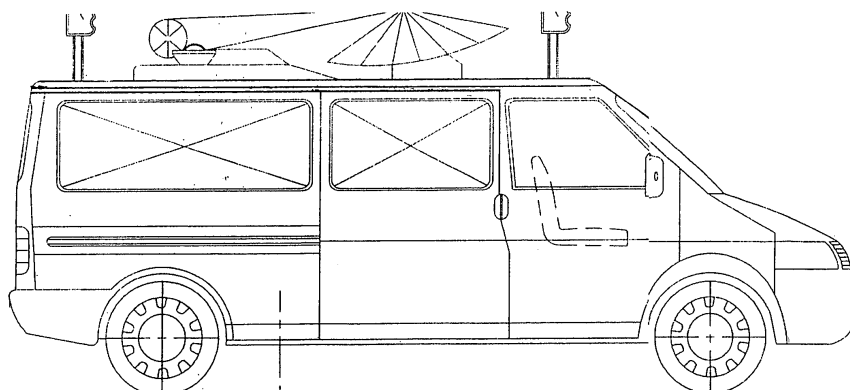


Figure 1.c

Description

[0001] The invention relates to a mobile electronic control system (Mobile ECS) and is designed as an alternative technology in order to realize the following in areas that are impossible to be monitored continuously and that are out of the fixed traffic violation detection system spots,

- to avoid traffic problems caused by parking violations,
- to avoid accidents caused by yellow box (scanned area) crossroads security control and overspeed in certain spots,
- to protect the security of life and property of pedestrians and vehicles,
- to avoid traffic problems caused by emergency lane and red light violations, and to measure surface roughness and quality of the road.

Operation Structure of the Mobile Electronic Control System

[0002]

- The mobile system catches images where a parking violation is done.
- The Mobile Electronic Control System processes the camera images on vehicles and detects parking violations.
- It detects certain violations on spots where there does not exist any Emergency Lane violation detection system.
- It catches and follows the image in crossroads where the Yellow Box (Scanned Area) or crossroads control is not available or no application is realized.
- In the system the speed measurement is done through RADAR (Laser, Doppler, RF) or Image processing technology. With the laser-based speed measurement device in the vehicle, vehicle speed can be detected. If desired, speed violation detection can be realized through video cameras. In case of a violation, license plate reading process is provided through the camera or video camera image in the system.
- All the equipment belonging to the Mobile Electronic Control System functions for 12 hours uninterruptedly, even if the vehicle is locked and in addition by the addition of energy it operates and be monitored for 7/24.
- The system is resistant to high heat and tough air conditions, and is able to catch images at night with the support of 4 video cameras in the special design infrared high speed PTZ mobile system.
- The vehicle in which the system is installed can be monitored live and real time via the satellite internet or GPRS EDGE connection on the electronic control system spots by the centre.
- 8-channel real time (30/25 IPS) recording, compat-

ible with Mobile DVR cameras is possible.

- The Mobile Electronic Control System vehicle has a hydraulic lever which enables getting images even as high as 4 meters high with the video camera above.
- The Mobile Electronic Control System has a sensor that enables getting meteorological data and transmitting these data to the centre when needed.
- The roughmeter measures surface roughness, and the portable device measures the quality of the road.

The Communication System

[0003] The systems to be installed can realize the recording process in the local system as compatible with the systems in the present traffic control centre, and can be monitored and controlled on the Electronic Control System spots or from the traffic control centre with the GPRS ROUTER.

SYSTEM COMPONENTS;

GPRS ROUTER

[0004] High speed UMTS technology realizes the data transfer up to 384 kb/h. This speed is the effective speed for image transferring in the traffic cameras (traffic density, crossroads cameras etc.) or security and monitoring sector (building control etc.).

[0005] In addition, High Speed Downlink Package Access Technology increases the speed for downlink up to 3.6 Mb/h. This extra downlink speed enables video recording. If there is no UMTS or HSDPA available, it utilizes the EDGE technology with speed up to 236 Kb/h or the GSM-GPRS technology with speed limited to 85.6 Kb/h.

[0006] The main advantage is the extra-high communication speed. Router is designed in a way to operate in professional applications that requires high volume data transfer through mobile wireless networks in short time intervals and is ideal for all camera applications.

[0007] Another advantage is that it can be configured on the user-friendly, password-protected web interface (HTTP). In other words, it is possible to configure the parameters of a router on a web browser (MS Explorer, Mozilla-Firefox etc.) anywhere in the world.

GPRS ROUTER's Important Features:

[0008]

- Automatic IP addressing on DHCP - LAN networks
- Configuration on HTTP server - internet server
- Anat - Address dial-up for internal and external networks
- SMS Informing - Informing the relevant individuals via SMS by switching on and off the power supply or GPRS connection,

- IPsec - Providing the external servers with a secure (with password) connection,
- L2TP - tunneling interconnection protocol,
- DynDNS - dynamic IP addressing support,
- NTP - time synchronization,
- FTP communication,
- Displaying the GPRS Status on the LED Light,
- Optionally, providing a second interface with a RS232/RS485/MBUS or I/O feature,
- It is possible to enable On-line information sharing on the GSM signal status, and if desired, inserting 2 SIM cards.

Portable Wireless Camera System;

[0009] This system provides the specified field of vision day and night thanks to its special glasses.

[0010] The camera on the hat gets the images using the image processing method of vehicle license plates and realizes the local video and image recording process. With the wireless transmission device on it, it transmits the images to the system.

[0011] Each WS - 410 antenna operates on 2.4 Ghz frequency individually. It enables the communication with the wireless networks surrounding it and transmits the data.

Industrial Computer

2 U Computer system case;

[0012] The CPU to be used is a two-kernel processor with a min speed of 2 Ghz., a 4 MB L2 cache, and a 800 MHz front data bus. The HDDs in the system are located in special independent cassettes. In order to protect the minimum vibration and shock waves from being effected, the surroundings of HDD is covered with a no-silicon special material and the HDD is located in the special cassette without any space for a physical connection.

- The computer should have a memory of Min. 2 Gb. Ram, and should enable upgrading to 8 GB. Ram.
- It has at least 2 extensible PCI slots.
- It has an onboard 10/100 BaseT Ethernet port inlet, an onboard Sound card, and Min. 2x5000 Gb. 7200 Rpm 32 MB Cache HDD.
- The Industrial Computer has a digital recording feature with an input of min 4 videos and sound.
- It has Min. 1 Min DVD+/-RW 16x Light Scribe, Min. 1 Com Port , 6 Usb, 1 RJ 45 input, and Min. 256Mb. VGA output.
- It supports Windows and Linux based operating systems.

Cameras and Keyboard

[0013] Infrared High Speed P / T / Z Mobile System, 1/4 " SONY CCD Day&Night Camera, 480 TV line ,f=3.5

- 91 mm, 26 x optical zoom ,0.01 lux, tilt speed: 0o - 40o /sec, Pan speed 0o - 80o /sec, maximum pan converter 360o constant, maximum tilt converter +90o - -90o, pan preset speed 100o/sec, tilt preset speed 60o /sec 128 preset, 6 track (scanning), 752 x 582 active pixel, shutter speed 1/3 ~1/10.000 sec, superior aluminum exterior, resistant to high temperature, and resistant to air conditions, IP66 security level, multi-protocol, RS - 485, resistant to dust, anti-fogging, protection against freezing, 2-Channel alarm output, the operation Temperature: -35°C ~ +55°C, baud width: 2400 Bps - 19200 Bps, RS485 control 90% humidity resistant video-camera.

[0014] The system has the speed dome controller Keyboard (3-AXIS), 3-axis joystick Keyboard, 5 inch color LCD monitor, OSD Menu, Multi-protocol with a Baud speed range of 2400 Bps -19200 Bps, RS-485 and RS-232 output, and can control several equipment including smart dome camera, decoder and processor.

TC-M 26SNB Infrared High Speed P/T/Z Mobile System

[0015] Speed Dome Controller Keyboard (3 - Axis) 3-Axis joystick Keyboard
5 inch color monitor
OSD Menu, Baud speed range : 2400 Bps - 19200 Bps
Multi Protocol
RS - 485 and RS - 232 output, smart dome camera, decoder and processor and
several other equipment can be controlled by this system.

Mobile DVR

[0016] Mobile DVR, Real time recording and monitoring (400Fps Real-Time), various screen display modes, for each 400 FPS channel 25 FPS recording speed, 704x576 (D1 Resolution) recording resolution, time, movement, planned, alarm, emergency recording options, NTSC / PAL video format, H-264 codec 8-channel video and in addition, 1-Channel VGA, 1 -Channel CVBS, 1-Channel Spot output, OggVorbis 16 Kbps sound codec 8-channel input and 1 output, 8 alarm input and 4 output
Client software present in the system can be connected to over 250 DVR devices simultaneously and 64 cameras can be displayed on the same screen.

[0017] With the Internet Explorer Support, it enables recording to the medium, remote record monitoring and record back-up that can be accessed via the web interface.

[0018] It supports TCP /IP and MultiCast protocol, and Dual Stream for low speed internet lines.

[0019] Internal DVD-RW, Client Software, internet Explorer, VCR, USB Flash Disk, USB CD-DVD/RW back-up is available.

[0020] User authorizations are watching camera display, watching camera recording, listening to sound recording, etc.

PTZ supports a number of commonly used protocols.

[0021] For remote control it includes Client Software, IP Keyboard, Internet Explorer, IR remote control, and 8 pieces of 2000 GB HDD (Total=16000Gb) can be inserted.

[0022] The interior dynamic is protected against oscillation and other factors using a vibration and shock waves absorptive silicon content special material against vibration.

Roughometer

[0023] Roughometer measures the surface roughness, and the portable device measures the quality of the road. It can be used as an alternative to laser profile determination devices. As a result of measurements, such conditions as which roads need maintenance, if the roads have the required specific roughness value, the wearing tendencies of the roads, the performances of the used materials, how the traffic affects the quality of the road can be detected.

[0024] The data collected can be saved in the device and can be transmitted to the computer later. Detailed tables, graphs, GPS maps (optional) related to the road surface can be prepared. No computer is needed inside to use the device.

Energy

[0025] Contrary to traditional batteries, it has 100% discharge option, and can be safely used in places of very high vibration with its strong structure and gel technology. Since it is resistant to vibration, it can be used in cross-country vehicles, construction machinery, ships and vessels.

[0026] It has the following features: circuit breakers for input, load and accumulator 3 two-polar Thermo - Magnetic W-automaton insurance operation technique, phase angle controlled thyristor module rectifier, can be used as direct current supply or accumulator charge device, microprocessor controlled, value setting in the digital panel, separate outputs for load and accumulator, parallel and serial connection, 230 Vac sinus wave output voltage, 50 Hz $\pm$ 0.05% output Frequency, 0-100 A suitable charge flow.

Vehicle interior design

[0027] **Rear section (mdf), Front section (mdf)**; is approximately made of 22 mm mdf block and the sides are made of fiberglass. To fix, tatheral steel bars have been used from the interior part.

[0028] **Plexy glass and moving mechanism** is made of approximately 50-70 cm plexy glass that links the driver and the rear section. It gets the ability to move from the 12 volt engine and can move up and down in 10 seconds. It can be used from both the front and the rear section.

[0029] **Charging dynamo, voltage regulator, alternator**; in the accumulators inserted in the vehicle and

other current consuming equipment, it is possible to charge more powerfully without impairing the originality of the vehicle. It charges its own system up to 40 amp. With those to be inserted later, it can charge to its full capacity of 90 amp.

[0030] **Electric Sunroof**; Sunroof can be mounted on the roof of the vehicle, with the full automatic and sunlight protection shade approximately sized 45-55. It is used to enable fresh air flow from outside to inside.

[0031] **Leather furnishing and cloth** is applied on raw products such as Mdf and fiberglass, lateral bar, etc. by coating and adhering. Vinyl and knitted fabric is not used.

[0032] **System insurance panel** is designed to trigger the voltages and tensions of products to be inserted or furnished later and to be used as a protection circuit.

[0032] **Mdf cabinet and desks** are made of mdf and fiberglass optionally. They will be manufactured in a way to be resistant to mobile conditions.

[0033] **Rear independent air conditioner** will be used for the purposes of cooling and heating the rear section, since the cockpit and the rear passenger sections will be divided. The system will be supported by the vehicle's own air conditioner compressor, and the front and rear sections will function separately.

[0034] **Sliding rear door window**; This window opens to the left side and will enable sunlight to come into the vehicle during the day.

[0035] 1.3 kw or 1 kw 220 w generator will meet the rectifier present in the vehicle and the 220 w potential need out of the vehicle.

[0036] The vehicle operates on gas, and the assembly of the starting system is rope-driven. The pneumatic lever will rise as high as approximately 3 meters out of the vehicle. The entire system is hydraulic, and designed telescopically. It will use the largest telescope with a diameter of approximately 13 cm and the smallest telescopes with a diameter of 0.8 cm.

Software

[0037] The Mobile ECS software can realize the license plate recognition system on a desired number of spots simultaneously. It can read and identify manually. It can read and identify automatically and by action.

[0038] The Mobile ECS software realizes the license plate recognition operation successfully on the camera image independently from the field of vision even when the vehicles approach to the camera from different angles.

[0039] The Mobile ECS software can display the image in real time (25 fps) on the screen for each camera.

[0040] The Mobile ECS software can function on a computer as 2 software when desired. The image capture card to be used should have four (4) inlets. Each inlet can operate for PAL 25 frame/second, and in total PAL 100 frame/second.

[0041] The software that transmits the parking viola-

tion images to the centre can realize this operation on the ECS spots through the satellite internet or special storage unit.

[0042] The traffic fine regulation is done automatically with the present information. When desired, recording over the vehicle camera image is possible. The violation detection is performed automatically. Violation detection is available day and night.

[0043] On the software; emergency lane, parking violation detection, yellow box, license plate detection, speed detection can be performed.

Explanation Of Drawings:

[0044]

Figure 1.a : Vehicle back view with the MOBILE ECS System

Figure 1.b : Vehicle top view with the MOBILE ECS System

Figure 1.c : Vehicle side view with the MOBILE ECS System

Claims

1. The invention relates to the mobile electronic control system (Mobile ECS), is designed in order to detect violations in areas that are impossible to be monitored continuously and that are out of the fixed traffic violation detection system spots, and comprises a system comprising a portable wireless camera system, GPRS Router, industrial computer, video-camera and keyboard, Mobile DVR, and Roughmeter located in vehicles comprising in the interior design a rear and front section, a plexy glass and moving mechanism, an electric sunroof, accumulators comprising a charging dynamo, a voltage regulator and an alternator, leather furnishing and cloth, system insurance panel, MDF Cabinet and desks, rear independent air conditioner, and a sliding rear door window.
2. Mobile electronic control system according to Claim 1, comprising a radar or image processing technology that detects speed measurements with the laser-based speed measurement device.
3. Mobile electronic control system according to Claim 1, wherein the camera or video camera captures the image as to the license plate reading process in case of a violation.
4. Mobile electronic control system according to Claim 1, wherein all the equipment within the system can function for 12 hours uninterruptedly even if the vehicle is locked, and in addition, by the addition of

energy it operates for 7/24.

5. Mobile electronic control system according to Claim 1, wherein at least 4 high speed PTZ mobile system cameras are resistant to high temperature and severe air conditions, and can capture color images at night.
6. Mobile electronic control system according to Claim 1, wherein the vehicle in which the system is installed has the satellite internet or GPRS EDGE connection on the electronic control system spots in order to be monitored live and real time by the centre.
7. Mobile electronic control system according to Claim 1, wherein it operates compatibly with Mobile DVR cameras in order to perform a 8-channel real time (30/25 IPS) record when driving.
8. Mobile electronic control system according to Claim 1, wherein the hydraulic lever comprising a video camera on that can capture the image as high as approximately 4 meters.
9. Mobile electronic control system according to Claim 1, wherein the sensor can obtain meteorological data and transmit these data to the centre when required.
10. Mobile electronic control system according to Claim 1, comprising a roughmeter that measures the surface roughness and a portable device that measures the quality of the road.
11. Mobile electronic control system according to Claim 1, wherein the systems to be installed can realize the recording process in the local system as compatible with the systems in the present traffic control centre, and can be monitored and controlled on the Electronic Control System spots and from the traffic control centre with the GPRS ROUTER.
12. GPRS Roter according to Claim 11, is **characterized** with the data transfer up to 384 kb/h with the high speed UTMS technology for the image transfer.
13. Mobile electronic control system according to Claim 1, wherein the portable wireless camera system glasses that gives the desired field of vision day and night.
14. Portable wireless camera system according to claim 13, wherein the camera on the hats gets the images using the image processing method of vehicle license plates and realizes the local video and image recording process.
15. Portable wireless camera system according to Claim 13, wherein the wireless transmission device trans-

mits the images to the system, each antenna operates in 2.4 Ghz frequency separately, and enables communication with the surrounding wireless networks.

16. Mobile electronic control system according to Claim 1, comprising an industrial computer comprising a two-kernel processor with a Cpu Speed of min. 2 Ghz, 4 MB L2 cache, 800 MHz front data bus, and in order to protect the minimum vibration and shock waves from being effected, the surroundings of HDD is covered with a no-silicon special material and the HDD is located in the special cassette without any space for a physical connection.
17. Mobile electronic control system according to Claim 1, wherein the video-camera and keyboard can record day and night, is high resolution, resistant to dust, anti-fogging, and protected against freezing.
18. Mobile electronic control system according to Claim 1, wherein Mobile DVR can be connected to over 250 DVR devices simultaneously and can display 64 cameras on the same screen with the real time recording and monitoring, various screen display modes, for each channel 25 FPS recording speed, 704x576 (D1 Resolution) recording resolution, time, movement, planned, alarm, emergency recording options, NTSC / PAL video format, H-264 codec 8-channel video and in addition, 1-Channel VGA, 1-Channel CVBS, 1-Channel Spot output, OggVorbis 16 Kbps sound codec 8-channel input and 1 output, 8 alarm input and 4 output Client software.
19. Mobile DVR according to Claim 18, wherein the interior dynamic is protected against oscillation and other factors using a vibration and shock waves absorptive silicon content special material against vibration.
20. Mobile electronic control system according to Claim 1, wherein the battery with its 100 % discharge ability, strong structure and gel technology can be safely used in places with a high vibration.
21. Mobile electronic control system according to Claim 1, wherein the vehicle in the interior design has a plexy glass and moving mechanism comprising a front and rear section approximately made of 22 mm mdf block and the sides made of fiberglass, where lateral steel bars are used from the interior part to fix, a plexy glass of approximately 50-70 cm that links the driver and the rear section, that gets the ability to move from the 12 volt engine, moves up and down in 10 seconds, and can be used from both the front and rear sections.
22. Mobile electronic control system according to Claim

1, comprising a charging dynamo, voltage regulator and alternator in the interior design, which can be inserted in the vehicle.

23. Mobile electronic control system according to Claim 1, comprising an electric sunroof in the vehicle interior design that is mounted on the vehicle roof with the full automatic and sunlight protection shade approximately sized 45-55, and that is used to enable fresh air to come from the exterior in the interior part.
24. Mobile electronic control system according to Claim 1, comprising leather furnishing and cloth in the vehicle interior design, which is applied on raw products such as Mdf and fiberglass, lateral bar, etc. by coating and adhering.
25. Mobile electronic control system according to Claim 1, comprising a system insurance panel in the vehicle interior design, which is designed to trigger the voltages and tensions of products to be inserted or furnished later and to be used as a protection circuit.
26. Mobile electronic control system according to Claim 1, comprising Mdf cabinet and desks in the vehicle interior design, which are made of mdf and fiberglass optionally and manufactured in a way to be resistant to mobile conditions.
27. Mobile electronic control system according to Claim 1, comprising a rear independent air conditioner in the vehicle interior design, which will be used for the purposes of cooling and heating the rear section, since the cockpit and the rear passenger sections will be divided, which will be supported by the vehicle's own air conditioner compressor, and through which the front and rear sections will function separately.
28. Mobile electronic control system according to Claim 1, comprising a sliding rear door window in the vehicle interior design, which opens to the left side and will enable sunlight to come into the vehicle during the day.
29. Mobile electronic control system according to Claim 1, wherein the assembly of the starting system of the vehicle to which the system will be mounted is rope-driven and wherein a pneumatic lever designed telescopically and entirely hydraulically will rise as high as approximately 3 meters out of the vehicle.
30. Mobile electronic control system according to Claim 1, comprising software that can realize the license plate recognition system on a desired number of spots simultaneously, read and identify manually, and can read and identify automatically and by action.

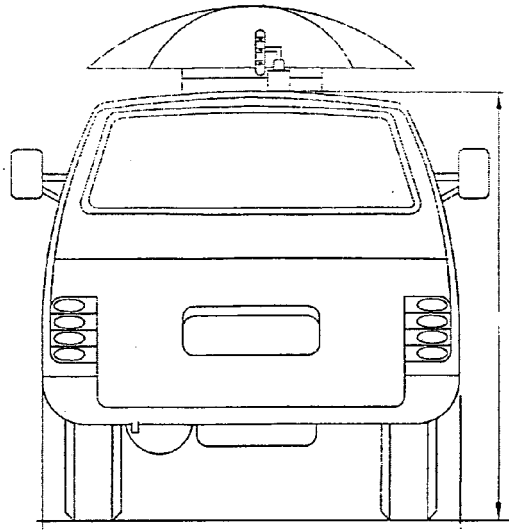


Figure 1.a

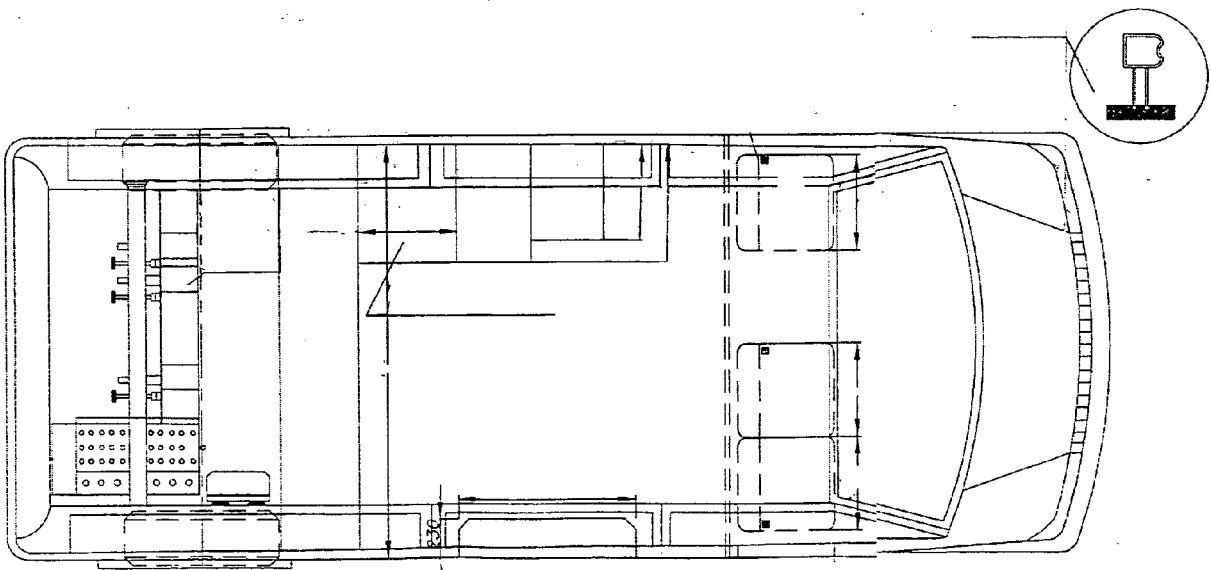


Figure 1.b

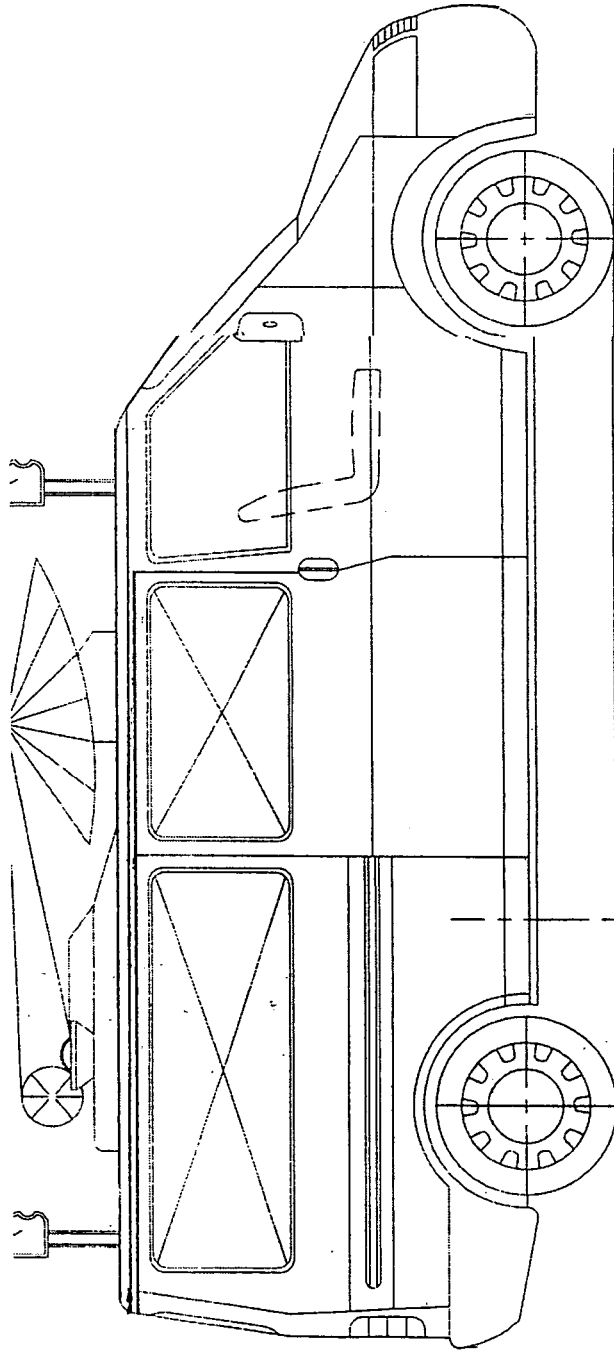


Figure 1.c

Application Number

which under Rule 63 of the European Patent Convention EP 08 40 4001 shall be considered, for the purposes of subsequent proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 6 690 294 B1 (ZIERDEN WILLIAM E [US]) 10 February 2004 (2004-02-10) * column 4, lines 11-37, 59-65 * * column 5, lines 7-18 * * column 6, lines 9-20 * * column 6, line 55 - column 7, line 11 * * column 8, lines 12-24 * -----	1	INV. G08G1/017
			TECHNICAL FIELDS SEARCHED (IPC)
			G08G
INCOMPLETE SEARCH			
The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search	Date of completion of the search	Examiner	
Munich	10 July 2009	Bourdier, Renaud	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



**INCOMPLETE SEARCH
SHEET C**

Application Number

EP 08 40 4001

Claim(s) searched incompletely:

1

Claim(s) not searched:

2-30

Reason for the limitation of the search:

The scope of the deemed present invention cannot be clearly identified from the application papers, and especially from the set of claims comprising one independent claim (claim 1) and 29 dependent claims, 25 of them being made directly dependent on said claim 1.

As far as the application as a whole can be understood, it seems to be dedicated to a vehicle and to a system called ECS (electronic control system), the system being comprised of various means and being rendered mobile (hence the expression "mobile ECS") due to the fact that it is installed in said vehicle.

As mentioned in the first 4 lines of the description, the aim of the mobile ECS is to provide an alternative technology to fixed traffic violation systems. To this avail, and also as claimed in claim 1, it contains means which are generally known, also for traffic control (camera, router, computer, etc), and which are put together in a vehicle. The mere fact of installing traffic control means of such kind in a vehicle is known in the art, e.g. from US6690294, (see passages mentioned in the Search Report and especially column 4, lines 34-37) and cannot represent, as such, an invention at the filing date of the application. This is true even though some of the means mentioned in claim 1 (e.g. roughmeter) cannot be found as such in US6690294

Claim 1 further contains a row of completely different items for which the skilled reader fails to understand either what they are (moving mechanism, mobile VDR, MDF cabinet - the abbreviations are nowhere defined), what technical problem they solve or even what their significance can be in a traffic control system, alone or when taken in combination (leather furnishing, air conditionner, sun roof, etc). It is submitted that these last mentioned features actually characterize no more than the design of the vehicle.

Even supposing that all above items would be understood, the description at most gives a row of technical specifications concerning the various items, but simply fails to express where the invention could lay and why this combination of known, and partly insignificant features would solve a technical problem with respect to prior techniques.

As to the search itself, it is considered useless to cite documents disclosing each and every feature of claim 1 because they belong to various, unrelated technical field and their significance for the application cannot be identified anyway from the application papers. It is submitted that in the present situation where only apparently conventional means are claimed, and no technical problem can be identified, lack of inventive step would systematically be objected, even if documents were made available.



**INCOMPLETE SEARCH
SHEET C**

Application Number
EP 08 40 4001

Moreover, searching the dependent claims would require searching at least 25 different and non unified features, reflected in 25 different technical fields.

As a final remark, it is observed that the intended scope of protection of claims 12, 14, 15, 19 is unclear because each of these claims refers back to only a sub-feature of a previous claim.

