TO
Office of the Controller General of Patents, Designs & Trade Marks
Boudhik Sampada Bhawan
S.M. Road, Antop Hill
Mumbai -400  037.

Dear Sir,

We introduce ourselves as an embedded systems Company engaged in design and manufacture of products centered around embedded systems. We have been in business since 1990. Our products include Electronic Security Systems, Telematics systems, Biometric Access Control systems, Remote displays etc. These products are combinations of  microntrollers, memory, FPGAs, plds, sensors and software (in the form of code, fuse maps and microcode).

We have serious concerns regarding proposed amendements to the patent laws which will allow patenting of combinations of hardware and "software".

I have tried to present our objections in as simple a manner as possible.
Our objections are as follows:

1.Any physical device wether described as general or special purpose, is dependent on an additional input in the form of code (machine code, binary, fuse map, micro code etc.) to give the device it's uniqueness, is by this very requirement of code, a reprogrammable general purpose machine.

2.Such code may exist internal to the device in ram, rom, fusemap, etc., or external to the device.

3.Such code maybe required to be set into the device once as part of the manufacturing process or intilization process (Commonly known as One Time Programmable), or at any time during the life of the device (Flashable or field programmable).

4.It is well known practise to create microntroller boards with FPGA.
It is even possible to create the entire board in a single device
(called System on a Chip or SOC) These boards are given unique
characteristics by reprogramming the internal memories and or
fusemaps. As part of cost reduction techniqes, such reprogramming may
be restricted to occur only once.

5.The uniqueness of these boards / devices is an attribute of the
code, not the device itself. Such code is amply protected by
copyright laws.

6.Such devices maybe claimed to be special purpose by it's "inventors"
simply because they choose to use it for that particular purpose.

7.Examples of Special purpose devices used for entirely different
purposes than originally intended.
Sound cards: These devices are used specifically for recieving
and reproducing sound. However sound cards are also used as
oscilloscope, or a Software Defined Radio, Or a radio modem, simlpy
by using different software.  The sound card may be used external to
a PC, in conjunction with a microntroller board (yet another special
purpose device).
Set Top Box: These devices can be used as controllers for a variety of
purposes - motor control, robotics, Home automation etc. again merely
replacing the code inside the device changes it's capabilities
completely.

8.Therefore any claimed invention that has code in any form as part of
it's claims, irrespective of the location of the code or the method
of induction into the device,  should not be allowed to be patented.
The merits of the invention must exist without any dependence on the
code. Any requirements for protection of code is amply met by
existing copyright laws.

9.Should the proposed amendemts be allowed, it would provide scope for
misuse, as it is possible to reproduce the functionality of a device
in combination with some code, either completely in hardware or
completely in software or some intermidate combination. Such
amendements would therfore stifle innovation and progress as it would
require everbody engaged in creative endevours using modern
electronics to identify any probable infringment.

We submit that the
Section 4.11.6:
[...]The claim orienting towards a "process/method" should contain a
hardware or machine limitation. Technical applicability of the
software claimed as a process or method claim, is required to be defined in
relation with the particular hardware components. Thus, the "software per se"
is differentiated from the software having its technical application in
the industry.[...]

Should be reframed to read as

[...]The claim orienting towards a "process/method" irrespective of
wether it contains a hardware or machine limitation shall not be
permitted. Technical applicability of the software claimed as a
process or method claim, even if defined in relation
with the particular hardware components shall not be permitted. Thus,
the "software per se" or "Software  in conjunction with a machine
limitation" shall not be permitted.[...]

Section 4.11.8:
The claims relating to software programme product are nothing but computer programme per se simply expressed on a computer readable storage medium and as such are not allowable. For example, if the new feature comprises a set of instructions (programme) designed to control a known computer to cause it to perform desired operations, without special adoption or modification of its hardware or organization, then no matter whether claimed as "a computer arranged to operate etc" or as "a method of operating a computer", etc., is not patentable and hence excluded from patentability.[...]

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Thanking you
Yours truly

J. T. D'souza